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Pliny, the Elder

Natural history. --.

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PLINY
NATURAL HISTORY
VII
BOOKS XXIV-XXVII



Translated by
W. H. S. JONES

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PLINY the Elder, Gaius Plinius Secundus (A.D. 23-79), a Roman of equestrian rank of Transpadane Gaul (N. Italy), was uncle of Pliny the letter writer. He pursued a career partly military in Germany, partly administrative in Gaul and Spain under the emperor Vespasian, became prefect of the fleet at Misenum, and died in the eruption of Vesuvius when he went to get a closer view and to rescue friends. Tireless worker, reader, and writer, he was author of works now lost, but his great *Naturalis Historia* in 37 books with its vast collection of facts (and alleged facts) survives—a mine of information despite its uncritical character. Book 1: table of contents of the others and of authorities; 2: mathematical and metrological survey of the universe; 3-6: geography and ethnography of the known world; 7: anthropology and the physiology of man; 8-11: zoology; 12-19: botany, agriculture and horticulture; 20-27: plant products as used in medicine; 28-32 medical zoology; 33-37: minerals (and medicine), the fine arts and gemstones.

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PLINY

NATURAL HISTORY

VII

LIBRI XXIV-XXVII

PLINY

NATURAL HISTORY

WITH AN ENGLISH TRANSLATION
IN TEN VOLUMES

VOLUME VII
LIBRI XXIV-XXVII

BY
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PREFACE

I WISH to thank Professor A. C. Andrews of the University of Miami for the great help he has been in the preparation of this volume. I sometimes refer to him as A.C.A. Expert botanical knowledge is essential for the solution of many problems that have arisen, especially in the compilation of the *Index of Plants*. My rough draft of this he revised, making many additions: these amount to several pages. For the errors that inevitably remain in my work I alone am responsible.

My thanks are also due to the staff of the Cambridge School of Botany and to Professor C. O. Brink of the same University.

INTRODUCTION

THE MANUSCRIPTS OF THESE BOOKS (CHIEFLY FROM MAYHOFF)

- N Nonantulanus (Sessorianus) 5th or 6th century,
a palimpsest, now in Rome, once in a
Benedictine Monastery at Nonantula, near
Modena.

LATER MANUSCRIPTS

1st family

- V Leidensis Vossianus, 11th century or earlier.
R codex Florentinus Riccardianus, about 1100
A.D.
d codex Parisinus latinus, 6797, 13th century.
F codex Leidensis, 11th century.
T codex Toletanus, 13th century.
x the better parts of X, *ex exemplari prioris
familiae* (Mayhoff).

2nd family

- E codex Parisinus latinus 6795, 10th or 11th
century.
r corrections from an unknown MS. noted in R.
a codex Vindobonensis CCXXXIV.
X codex Luxemburgensis, the parts not included
in x.

“*Codd.*” in the *apparatus criticus* is usually the same
as Mayhoff’s *ll.*, i.e., a *consensus* of VR(r)dE, some-
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times only a *consensus* of several MSS. of the more reliable kind. *Vulg.* = the *textus receptus* of the early editions. Of FTx Mayhoff says: "*lectiones ita tantum adnotatae sunt, ut e silentio nihil concludendum sit.*"

The edition of Dalecamp (1587) has in the margin: (1) readings of a lost MS.; (2) readings of a lost edition or conjectures of an unknown scholar.

In the critical notes (1) is called "cod. Dal." and (2) "vet. Dal."

As to the value of these MSS., I have generally followed Mayhoff. The method adopted in fixing the text has been to accept as correct the parts where Detlefsen and Mayhoff agree, except in a few places where internal evidence or the text of Dioscorides pointed to another reading. Where these two editors differ I have tried to choose the likelier of the two readings. If I felt that neither alternative could be accepted, I have sometimes ventured on an emendation suggested by a friend or thought out by myself, but never, I hope, where a reasonable reading is found in at least one MS. of fair authority. Such a method as this would be unsafe were it not for the fact that Mayhoff's *apparatus criticus* is both full and trustworthy.

Although one who has not collated, or at least personally examined, the MSS. in Mayhoff's *apparatus*, cannot claim to appreciate fully their relative importance, yet he must acquire, as he studies their various readings, some conception of the weight to be attached to them. Such a critic, however, should exercise even greater caution than the critic fully equipped for his task. For his judgment, however great his knowledge is of Plinian usage, of the parallel passages in Theophrastus and Dioscorides,

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and of the principles of textual criticism, is certain to be influenced unduly by the subjective element in his reasoning. A translator, however, although he would prefer to spend all his time and care on his proper task of translating, is sometimes compelled to defend a new reading or suggest an emendation, because in his opinion such a course is required by the sense of the passage. But the extra caution necessary in these cases has made me refrain from mentioning some emendations of my own that I thought possible or even likely. It is, moreover, often forgotten that an ancient author—and this perhaps applies especially to Pliny—may himself have made mistakes, even bad ones, that escaped the notice of his *corrector*, if he had one.

SOME DIFFICULT WORDS IN PLINY.

THE ADJECTIVE *PINGUIS* APPLIED TO LEAVES

THERE are in Pliny few words more perplexing than *pinguis* when applied to leaves. Forcellini says “*pinguia folia: crassa et veluti carnosae*.” Pliny, however, uses it to translate *λιπαρός*, which is very common in Dioscorides, and is rendered by Hort “glossy” (leaves) in his edition of Theophrastus.

It is therefore tempting to use “glossy” to translate Pliny’s *pinguis* (and the *λιπαρός* of Dioscorides) on all occasions, but there are difficulties. The latter has (IV 170): *κλῶνας λιπαρούς*, and “glossy twigs” seems unlikely; while Pliny in XXV § 124 speaks of *radicibus pinguibus*, which is surely “juicy roots.” It would appear that “juicy” is at least a possible translation of *pinguis*, especially as Pliny often speaks of leaves having a *sucus*. Examples are: *sucus*

INTRODUCTION

foliorum (XXIV §§ 47 and 131); *foliis exprimitur sucus* (XXIV § 70); *fit et foliis sucus* (XXIV § 109); *sucus e fronde* (XXV § 68).

The claims of "fleshy" have to be considered. On the face of it, perhaps, it is a more natural epithet for leaves than either "glossy" or "juicy," and it is the only meaning given by Forcellini. Against the rendering must be put the frequent use of *σαρκώδης* by our Greek authorities in this sense, often in close conjunction with *λιπαρός*.

In Pliny XXV § 161 occurs a phrase which seems at first sight to settle the matter. He speaks of *folia . . . carnosā, pinguiā,¹ largā suco*. Does this mean "fleshy, glossy, juicy leaves"? The last two epithets, however, may be connected, which would give the sense: "rich with copious juice." This is perhaps unlikely, but cannot be ruled out as impossible. The parallel passage in Dioscorides (IV 88, 89) does not help in deciding the question.

Hort may be right in translating *λιπαρός* by "glossy," but what did Pliny take it to mean when applied to leaves? A consideration of all the pertinent passages suggests a combination of "glossy" and "fleshy," i.e., not necessarily large, but "sleek and plump." Perhaps, if a single word must be chosen to render *pinguis* whenever it occurs, "rich" gets as near to Pliny's idea of the meaning as the English language will permit. But unfortunately modern botanists are opposed to this rendering.

It may seem that the best course would be to identify the leaf referred to, and to vary the translation to suit the actual facts. Botanists, however,

¹ Littré translates *pinguiā* (into the French) "grasses"; Bostock and Riley "unctuous."

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point out (1) that identification is often uncertain; (2) that we may know the genus, but not the species of the plant mentioned, and (3) that a leaf is often both fleshy and glossy.

On the whole, perhaps "fleshy" is the best translation, except in cases where another rendering is obviously desirable.

Words signifying colours are very troublesome in the botanical parts of Pliny; *niger*, *candidus*, *albus*, *purpureus*, bewilder the translator nearly every time they occur.

I have used "black" and "white" unless there is something in the context that makes "dark" and "light" more appropriate; the comparative *nigrior*, for instance, is more likely to be "darker" than "blacker" when applied to leaves or stalks.

Pliny has quite a long section (IX, 124-141) dealing with *purpura*. It is plain from this that the colour referred to was usually a deep red tinged with more or less blue, our "purple" in fact, the most esteemed variety being like clotted blood. There were many shades of it, a common one being bright red.

The word *purpureus* covered a very wide range of meanings; Pliny applies it to the violet (XXI, 64), to plums (XX, 41), to figs (XV, 69) and to lettuce (probably a form of headed lettuce) (XIX, 126). The last suggests our "brown cos" and "continuity." In books XX-XXVII Pliny is mostly translating Greek, and *πορφύρεος* seems to be a somewhat wider term than *purpureus*, which is Pliny's equivalent. To these elements of uncertainty must be added the possibility that flowers may have varied their shades in the last two thousand

INTRODUCTION

years, so that modern plants are not an infallible guide.

On the whole it seems best to keep "purple" (Littré has regularly "pourpre") unless the context shows that such a rendering is impossible or absurd.

Vero in Pliny is often neither intensive nor adversative, neither "indeed" nor "however," but almost a mere connective particle equivalent to *item*. Sometimes, but by no means always, it introduces a climax. Usually, however, a slight, generally a very slight, adversative force remains, and I have always tried "however" and "indeed" before falling back on a purely connective word.

Oleum, translated "oil," was usually, perhaps always, olive oil. When another kind of oil is indicated an epithet is added.

The Latin names of plants have been kept unless to do so would be absurd; I write for instance *sideritis* and *ageraton*, but "rose" and "plantain." In other words, English names are used only when they are familiar and also correct identifications. The *Index of Plants* should clear up most of the difficulties that may occur.

PLINY :
NATURAL HISTORY
BOOK XXIV

PLINII NATURALIS HISTORIAE

LIBER XXIV

I. NE silvae quidem horridiorque naturae facies medicinis carent, sacra illa parente rerum omnium nusquam non remedia disponente homini, ut medicina¹ fieret etiam solitudo ipsa, ad² singula³ illius discordiae atque concordiae miraculis occursantibus. quercus et olea tam pertinaci odio dissident ut altera in alterius scrobe depacta emoriantur, quercus vero et iuxta nucem inglandem. pernicialia et brassicae cum vite odia, ipsum olus quo vitis fugatur adversum² cyclamino et origano arescit. quin et annosas iam et quae sternantur arbores difficilius caedi, celerius marcescere tradunt, si prius manu quam ferro attingantur. pomorum onera iumenta statim sentire⁴

¹ medicina Vdx, Mayhoff: medicinae Dellefsen.

² ipsa, ad ego: ipsa, et ad Mayhoff: ipsa, sed ad multi odd. Fortasse sed per dittographiam est ortum.

³ singula Dellefsen, Mayhoff: singulas, cod. a: stgula V¹: est gula V². Num latet singulariis vel singularibus sine ad?

⁴ iumenta statim sentire cod. a, Dellefsen: a iumentis statim sentiri Vdx, Mayhoff.

^a The tense of *fieret* shows that the participle *disponente* is imperfect, referring to the time of the actual creation. The *ut* might be final: "for the very desert to become a drug store."

PLINY: NATURAL HISTORY

BOOK XXIV

I. NOT even the woods and the wilder face of Nature are without medicines, for there is no place where that holy Mother of all things did ^a not distribute remedies for the healing of mankind, so that even the very desert was made a drug store,^b at every point occurring wonderful examples of that well-known antipathy and sympathy. The oak and the olive are parted by such inveterate hatred that, if the one be planted in the hole from which the other has been dug out, they die, the oak indeed also dying if planted near the walnut. Deadly too is the hatred between the cabbage and the vine; the very vegetable that keeps the vine at a distance itself withers away when planted opposite cyclamen or wild marjoram. Moreover, trees, it is said, that are now old and being felled are more difficult to cut down, and decay more quickly, if man's hand touch them before the axe. There is a belief that beasts of

The sympathies and antipathies in Nature.

^b I think that *medicina* here means the shop or booth (*officina*) where the physician prescribed and sold his medicines. Cf. Pliny XXIX. § 12: *Cassius Hemina . . . auctor est primum e medicis venisse Romam . . . Archagathum . . . eique . . . tabernam in compito Acilio emptam*. This sense occurs in Plautus, and Pliny, in a rather poetic passage, may well have so used it metaphorically.

- ac, nisi prius ostendantur his, quamvis pauca portent, sudare ilico. ferulae asinis gratissimo sunt in pabulo, ceteris vero iumentis praesentaneo veneno, qua de causa id animal Libero patri adsignatur, cui et
 3 ferula. surdis etiam rerum sua cuique sunt venena ac minimis quoque. philyra coci et polline nimium salem cibis eximunt, praedulcium fastidium sal temperat. nitrosae aut amarae aquae polenta addita mitigantur, ut intra duas horas bibi possint, qua de causa in saccos vinarios additur polenta. similis vis Rhodiae cretae et argillae nostrati. concordia valent, cum pix oleo extrahitur, quando utrumque pinguis naturae est. oleum solum calci miscetur, quando utrumque aquas odit. cummis aceto facilius cluitur, atramentum aqua, innumera praeterea alia quae suis locis dicentur adsidue.
- 4 Hinc nata medicina. haec sola naturae placuerat esse remedia parata vulgo, inventu facilia ac sine impendio et quibus vivimus. postea fraudes hominum et ingeniorum capturae officinas invenere istas in quibus sua cuique homini venalis promittitur vita. statim compositiones et mixturae inexplicabiles decantantur, Arabia atque India remedia¹ aestimantur, ulcerique parvo medicina a Rubro mari inputatur,² cum remedia vera cotidie pauperrimus quisque

¹ remedia *Mayhoff*: in media plerique *codd.*: in medio *cod.* a, *Dellefsen* vel Media *coni. Mayhoff*.

² inputatur *codd.*, *Mayhoff*: inportatur *Dellefsen*.

^a *Creta* was perhaps fuller's earth.

^b The sentence in form is similar to § 1: *ut medicina fieret etiam solitudo ipsa*. With *Mayhoff*'s ingenious emendation: "Arabia, India or Media are highly commended."

^c With the reading *inportatur*: "for a tiny sore a medicine is imported from the Red Sea" (Arabian and Persian Gulfs).

burden know at once when their load consists of fruit, and unless it is first shown to them straightway begin to sweat, however small their load may be. Fennel-giant makes very agreeable fodder for the ass; to other beasts of burden, however, it is a quick poison. For this reason the animal is sacred to Father Liber, as is also fennel-giant. Lifeless things also, even the most insignificant, have each their own special poisons. By means of linden bark and fine flour cooks extract excessive salt from food; salt reduces the sickliness of over-sweet things; water that is nitrous or bitter is sweetened by the addition of pearl barley, so that within two hours it is drinkable, and for this reason pearl barley is put into linen wine-strainers. The chalk ^a of Rhodes and the potter's earth of our own country possess a similar property. Affinities show their power when pitch is taken out by oil, both being of a greasy nature. Oil alone mixes with lime, both hating water. Gum is more easily removed by vinegar, ink by water, and countless other examples besides will be carefully given in their proper place.

Hence sprang the art of medicine. Such things alone had Nature decreed should be our remedies, provided everywhere, easy to discover and costing nothing—the things in fact that support our life. Later on the deceit of men and cunning profiteering led to the invention of the quack laboratories, in which each customer is promised a new lease of his own life at a price. At once compound prescriptions and mysterious mixtures are glibly repeated, Arabia and India ^b are judged to be storehouses of remedies, and a small sore is charged ^c with the cost of a medicine from the Red Sea, although the genuine remedies form the

*The origin of
medicine.*

cenet. nam si ex horto petantur, aut herba vel frutex quacratur, nulla artium vilior fiat. ita est profecto, magnitudine populi R. periit ritus, vincendoque victi sumus. paremus externis, et una artium imperatoribus quoque imperaverunt. verum de his alias plura.

6 II. Loton herbam itemque Aegyptiam eodem nomine alias et Syrticam arborem diximus suis locis. haec lotos, quae faba Graeca appellatur a nostris, alvum bacis sistit, ramenta ligni decocta in vino prosunt dysintericis, menstruis, vertigini, comitialibus, cohibent et capillum. mirum his ramentis nihil esse amarius fructuque dulcius. fit et e scobe eius medicamentum ex aqua myrti decocta, subacta et divisa in pastillos, dysintericis utilissimum pondere victoriati cum aquae cyathis tribus.

7 III. Glans intrita duritias quas cacoethe vocant cum salsa axungia sanat. vehementiores ilignae¹ et in omnibus cortex ipse corticique tunica subiecta. haec decocta iuvat coeliacos. dysintericis et inlinitur

¹ ilignae *Detlefsen*: iligna *Sillig*, *Mayhoff*: ligna *aut* lichenas *codd.*

^a The ordinary meaning of *nam* would make good sense, but the Plinian usage fits better the logic of the passage.

^b See XXI. § 103 and XIII. §§ 104 ff. Perhaps *Syriacam*, referring to the *faba Syriaca*, should be read for *Syrticam*.

^c This weight and coin is first mentioned by Pliny in XX. § 264. It was half a denarius, that is, half a drachma.

^d This chapter is difficult to translate, or even to understand, because Pliny, after beginning with the medicinal uses of *glans*, proceeds, without telling the reader that he has passed on to the oak, to talk of *folia et bacae*. Accordingly, it is uncertain whether *cortex* means the peel of the acorn or the bark of the tree. Dioscorides is quite clear. Under *δρῦς* he says (I. 106, Wellmann): *μάλιστα δὲ αὐτῆς στύφει τὸ μεταξύ τοῦ φλοιοῦ καὶ τοῦ πρέμνου ὑμενοειδές, ὁμοίως καὶ τὸ περὶ τῇ*

daily dinner of even the very poorest. But^a if remedies were to be sought in the kitchen-garden, or a plant or a shrub were to be procured thence, none of the arts would become cheaper than medicine. It is perfectly true that owing to their greatness the Roman people have lost their usages, and through conquering we have been conquered. We are the subjects of foreigners, and in one of the arts they have mastered even their masters. But of this more elsewhere.

II. In their proper places I have already spoken of *The lotus*, the plant called lotus,^b and also of the Egyptian plant called by the same name, sometimes known also as the tree of the Syrtes. The berries of this lotus, which by our countrymen is called the Greek bean, check looseness of the bowels. Shavings of the wood, boiled down in wine, are good for dysentery, irregular menstruation, giddiness and epilepsy. They also prevent the hair from falling out. It is strange that nothing is more bitter than these shavings or sweeter than lotus fruit. From the sawdust also of the wood a medicine is prepared by boiling it down in myrtle water; it is then kneaded and cut into lozenges, which make a very useful medicine for dysentery, the dose being one victoriatum^c to three cyathi of water.

III. Pounded acorns with salted axle-grease cure *Acorns*, the indurations that are called malignant. More potent are those of the holm-oak, and in all acorns^d the more potent parts are the peel itself and the skin just under it. A decoction of the latter is good for coeliac affections. In cases of dysentery also even
 βαλάνω ὑπὸ τὸ κέλυφος. Under αἱ βάλανοι: ἀρμόζουσι δὲ πρὸς τὰ ἰοβόλα ἐσθιόμεναι, καὶ τὸ ἀφέψημα δὲ αὐτῶν καὶ τοῦ φλοιοῦ βοηθεῖ τοξικῶ μετὰ γάλακτος βοείου πινόμενον. . . . ἰσχυρότεραι δὲ τῶν δρυίνων αἱ πρίνιναι τῇ δυνάμει εἰσί. There is no confusion here between the acorn and the oak.

PLINY : NATURAL HISTORY

vel ipsa glans. eadem resistit serpentium ictibus. rheumatismis, suppurationibus. folia et bacae vel cortex vel sucus decocti prosunt contra toxica. cortex inlinitur decoctus lacte vaccino serpentis plagae, datur et ex vino dysintericis. eadem et ilici vis.

8 IV. Coccum ilicis vulneribus recentibus ex aceto inponitur, epiphoris ex aqua, oculis subfusus sanguine instillatum.¹ est autem genus ex eo in Africa fere et Asia nascens celerrime in vermiculum² se mutans, quod ideo scolecium vocant inprobantque. principalia eius genera diximus.

9 V. Nec pauciora gallae genera fecimus, solidam perforatam, item albam nigram, maiorem minorem. vis omnium similis, optima Commagena. excrescentia in corpore tollunt, prosunt gingivis, uvae, oris exulcerationi. crematae et vino extinctae³ coeliacis, dysintericis inlinuntur. paronychiis ex melle, et unguibus scabris, pterygiis, ulceribus manantibus, condylomatis, ulceribus⁴ quae phagedaenica vocantur. in vino autem decoctae auribus instillantur. oculis

¹ instillatum *codd.* : instillatur *vulg.*, *Mayhoff*.

² vermiculum *EX vulg.* : vermiculum id *Mayhoff* : vermis subtilis *Sillig, Dellefsen* : vermis ultimis aliquot *codd.*

³ *Post extinctae lacunam indicat Mayhoff, qui coll. Dioscoride* (I. 107) sanguinem sistunt; ex aqua aut vino tritae excidisse putat.

⁴ ulceribus *cod. Dal., Sillig, Mayhoff* : vulneribus *Dellefsen, codd.*

^a Or :—"It is used in an application for cases of dysentery, or the acorn itself is so used."

^b See note *d* on p. 6. The "berries" may be the galls caused by the gall-fly *Neuroterus baccarum*.

^c Either poisons generally or those used to poison arrows (τόξα) and other weapons. See also note *a* on p. 20.

the acorn itself is applied.^a The same decoction is a remedy for snake bites, fluxes and suppurations. The leaves^b and berries, or the bark,^b or the liquid of a decoction, counteract poisons.^c A decoction of the bark^b in cows' milk is applied to snake bites, and the bark in wine is given for dysentery. The holm-oak has the same properties.

IV. The scarlet berry^d of the holm oak is applied to fresh wounds in vinegar and to fluxes of the eyes in water; it is dropped into eyes that are blood-shot. There is also a kindred berry, found commonly in Africa and Asia, quickly turning into a little worm; for this reason it is called scolecium,^e and is in low esteem. The main varieties of it I have already^f given.

V. We have classified^f just as many varieties of gall-nut—the solid and the perforated, the white and the dark, the larger and the less. The properties of all are alike, although the best kind comes from Commagene. They remove excrescences of flesh, and are good for the gums, the uvula, and an ulcerated mouth. Burnt and then extinguished with wine they are applied^g for coeliac affections and dysentery, in honey to whitlows, scabrous nails, hangnails, running sores, condylomata, and the sores called “phagedaenic.” A decoction moreover in wine is dropped into the ears and also used as an application

^a The kermes insect of the *Quercus coccifera*.

^e “Worm berry.”

^f Book XVI. §§ 32 and 26.

^g Mayhoff thinks that there is a lacuna here, because of certain words in Dioscorides I, 107. But Pliny by no means corresponds to Dioscorides closely in this chapter, and has left out much that is found in the Greek. Accordingly it is unsafe to postulate a lacuna in any particular passage.

PLINY : NATURAL HISTORY

- inlinuntur, adversus eruptiones, panos cum aceto.
 10 nucleus commanducatus dentium dolorem sedat, item
 intertrigines et ambusta. immaturae ex his ex
 aceto potae lienem consumunt. eadem crematae
 et aceto salso extinctae menses sistunt vulvasque
 procidentes fotu. omnis capillos denigrat.¹
 11 VI. Viscum e robore praecipuum diximus haberi,
 et quo conficeretur modo. quidam contusum in aqua
 decocunt,² donec nihil innatet. quidam comman-
 ducantes acinos expuunt cortices. optimum quod
 sine cortice quodque levissimum, extra fulvum, intus
 porraceum. nihil est glutinosius. emollit, discutit
 tumores, siccatur strumas. cum resina et cera panos
 12 mitigat omnis generis. quidam et galbanum adiciunt
 pari pondere singulorum, eoque modo et ad vulnera
 utuntur. unguium scabritias expolit, si septenis
 diebus solvantur³ nitroque conluantur. quidam id
 religione efficacius fieri putant prima luna collectum
 e robore sine ferro, si terram non attigerit, comitialibus

¹ denigrat VEX, *Mayhoff*: denigrant dT *vulg.*, *Dellefsen*.

² Num decocunt post innatet transponendum?

³ solvantur *codd.*: illinantur *coni. Mayhoff*, qui confert *Dioscor.* III. 89 et *Plin.* XX. §§ 39, 93, 101, 103, XXI. § 142.

^a See XVI. §§ 30 and 245-248. *Viscum* is used of the plant, of the berries, and also of the birdlime made from these. See XVI. § 248, *viscum fit ex acinis*.

^b Dioscorides III. 89: κόπτεται δὲ ὁ καρπός, εἶτα πλύνεται, εἶτα ἔψεται ἐν ὕδατι· ἔνιοι δὲ μασώμενοι αὐτὸν ἐργάζονται, "the fruit is crushed, then washed, then boiled in water; some work it up by chewing." This is clear sense, but Pliny's text scarcely agrees with it. There is nothing in Pliny to correspond to πλύνεται or ἐργάζονται, and nothing in Dioscorides to correspond to *donec nihil innatet* and *expuunt cortices*. It is possible that *donec nihil innatet* should be transposed: "crushed in water

for the eyes; with vinegar it is used for eruptions and superficial abscesses. The inner part of the nut when chewed relieves toothache, and also chafing of the skin and burns. Taken unripe in vinegar gall-nuts reduce a swollen spleen; then again, burnt and extinguished in salt and vinegar, they check excessive menstruation and prolapse of the uterus if used as a fomentation. All kinds of gall-nut blacken the hair.

VI. I have already said ^a that the choicest mistletoe *Mistletoe.* is thought to come from the hard-wood oak, and I have given the way of preparing it. Some crush it and boil in water until none of it floats on the surface; others chew the berries and spit out the skins.^b The best birdlime from mistletoe is without any skin, and very smooth,^c yellow on the outside and leek-green within. Nothing is more sticky than this birdlime. It is emollient, disperses tumours, and dries up scrofulous sores; with resin and wax it softens superficial abscesses of every sort. Some add galbanum also, equal in weight to each of the other ingredients, and this mixture they use also for the treatment of wounds. The lime smooths scabrous nails, but the application must be taken off ^d every seven days and the nails washed with a solution of soda.^e Some superstitiously believe that the mistletoe proves more efficacious if it be gathered from the hard-wood oak at the new moon without the use of iron, and without its touching

until nothing floats on the surface," crushing and washing being thus combined. More probably Pliny is translating, not the passage as it appears in Dioscorides, but one closely related to it.

^c Dioscorides has λείος.

^d With Mayhoff's conjecture, "applied (again)."

^e *Nitrum* was sodium carbonate mixed with chlorides and calcium carbonate. It was brought from pools N.-W. of Cairo.

mederi, conceptum feminarum adiuvere, si omnino secum habeant, ulcera commanducato inpositoque efficacissime sanari.

- 13 VII. Roboris pilulae ex adipe ursino¹ alopecias capillo replent. cerri folia et cortex et glans siccatur collectiones suppurationesque, fluctiones sistit. torpentes membrorum partes corroborat decoctum eius fotu, cui et insidere expedit siccandis adstringendisque partibus. radix cerri adversatur scorpiionibus.

VIII. Suberis cortex tritus ex aqua calida potus sanguinem fluentem ex utralibet parte sistit. eiusdem cinis ex vino calido sanguinem excreantibus magnopere laudatur.

- 14 IX. Fagi folia manducantur in gingivarum laborumque vitiis. calculis glandis fagineae cinis inlinitur, item cum melle alopeciis.

- 15 X. Cupressi folia trita recentibus vulneribus² inponuntur, et capiti cum polenta, si a sole doleat, item ramici, qua de causa et bibuntur. testium quoque tumori cum cera inlinuntur, capillum deni-

¹ ursino *vulg.* Mayhoff: vere ursino Dellefsen, Strackium secutus: vero ursino *codd.* Vide notam (b).

² recentibus vulneribus *ex Plinio iun.* 74, 7 *coni.* Mayhoff; ego quoque ipse *ex Dioscoride ita suspicatus sum*: serpentibus ulceribus Mayhoff *in textu*: serpentium ictibus Dellefsen: serpentibus aut serpentis aut serpentium *codd.* Cf. Dioscorides I. 74 τὰ δὲ φύλλα λεία καταπλαττόμενα τραύματα κολλᾷ.

^a For this use of *omnino* see IX. § 185, XVI. § 149, XXII. § 60, XXIV. § 95, XXV. § 101, XXVI. § 98, XXVIII. §§ 79, 80, 83, 85, XXXII. § 8.

^b The emendation of Strack (*vere*—"real bear's grease"—for *vero*) is very ingenious. Perhaps a lacuna after *pilulae*, with *vero* an adverb.

^c For *alopecia* see list of diseases.

the ground ; that so it cures epilepsy, helps women to conceive if they merely ^a carry it on their persons ; that chewed and applied to sores it heals them most effectively.

VII. The globules growing on the hard-wood oak *Hard-wood oak globul* mixed with ^b bear's grease restore hair lost through mange.^c The leaves, bark and acorns of the Turkey *Turkey O* oak dry up gatherings and suppurations, and check fluxes. Paralysed parts of limbs are strengthened by fomenting with a decoction of it, which as a sitz bath is useful for drying and bracing these parts. The root of this tree counteracts the poison of scorpions.

VIII. The bark of the cork-tree, pounded and taken *Cork.* in hot water, arrests hæmorrhage from either part ^d of the body, and the ashes of the same taken in heated wine are highly praised as a cure for spitting of blood.

IX. Beech leaves are chewed for affections of the *Beech leav* gums and of the lips. The ashes of the beech nut make a liniment for stone in the bladder, and with honey for mange.

X. The pounded leaves of the cypress are applied *Cypress leaves.* to fresh ^e wounds, and with pearl barley to the head in cases of sunstroke ;^f they make an application also for hernia, for which too they are taken in drink. With wax they make an ointment also for swollen

^a Usually taken to be mouth and nose. In view of the fact that *pars* often means "side," perhaps mouth and nose make one *pars*, and the anus (piles, etc.) the other.

^e *Recentibus vulneribus* seems the most likely restoration of the MSS. *serpentibus*. It is supported by Dioscorides I. 74, and if *vulneribus* were omitted (haplography), *serpentibus* might naturally be written for the now meaningless *recentibus*. Cf. § 8 of this book.

^f "Headache after exposure to the sun," perhaps.

grant ex aceto. eadem trita cum duabus partibus panis mollis e vino Ammineo subacta pedum ac nervorum dolores sedant. pilulae adversus serpentium ictus bibuntur, aut si eiciatur sanguis, collectionibus inlinuntur. ramici quoque tenerae tusae cum axungia et lomento prosunt. bibuntur ex eadem causa. parotidi et strumae cum farina inponuntur.

16 exprimitur sucus tuis cum semine¹ qui mixtus oleo caliginem oculorum aufert. item victoriati pondere in vino potus inlitusque² cum fico sicca pingui, exemptis granis, vitia testium sanat, tumores discutit et cum fermento strumas. radix cum foliis trita pota vesicae et stranguriae medetur, et contra phalangia. ramenta pota menses cient, scorpionum ictibus adversantur.

17 XI. Cedrus magna, quam cedrelaten vocant, dat picem quae cedria vocatur, dentium doloribus utilissimam. frangit enim eos et extrahit, dolores sedat. cedri sucus ex ea quomodo fieret diximus, magni ad volumina³ usus, ni capiti dolorem in-

¹ *Post semine punctum Mayhoff.*

² *inlitusque codd. : inlitusve e Plinio iun. Mayhoff.*

³ *volumina plerique codd., Sillig, Mayhoff : collyria Dellefsen : duo lumina X : lumina vulg.*

^a Perhaps merely "darken," though *denigro* is a strong word. See § 10.

^b See XX. § 153, XXII. § 119, XXVI. § 49, XXVIII. § 177, XXX. § 71, XXXIV. § 103.

^c "Cedar-fir." The ordinary *cedrus* was the prickly juniper (*Juniperus oxycedrus*), not cedar of Lebanon. But the "big cedar" was *Juniperus excelsa*. What is the subject of *vocant*? Presumably the Greek botanists.

^d See XVI. § 52. But in this chapter the method is described of extracting resin from pitch-pine (*taeda*). Pliny says there that this resin is called *cedrium* in Syria, adding that the Egyptians use it for embalming corpses.

testicles; applied in vinegar they turn the hair black.^a The same, pounded with twice the quantity of soft bread and kneaded in Amminean^b wine, soothe pains in the feet and sinews. The globules on this tree are taken in drink for snake bites or for the bringing up of blood, and used as an application for gatherings. Gathered while soft, and pounded with axle-grease and bean meal, they are also good for hernia. For the same purpose they are taken in drink. Mixed with meal they are applied to parotid tumours and to scrofulous sores. Pounded with the seed these globules yield a juice, which mixed with oil takes away films on the eyes. Taken too in doses of one victoriatum in wine and used as an ointment with a rich dried fig, from which the seeds have been removed, it cures affections of the testicles, disperses tumours, and with leaven heals scrofulous sores. Cypress root, pounded with the leaves and taken in drink, cures affections of the bladder and strangury, and counteracts the poison of spiders. The shavings taken in drink act as an emmenagogue, and neutralize the stings of scorpions.

XI. The big cedrus, which they call cedrelate,^c yields a pitch which is called cedria, very useful for toothache; for it breaks the teeth and brings them out, easing the pain. I have already described^d how cedrus juice is extracted from the wood, of great use for book-rolls^e were it not for the headache it causes.

*The big
cedrus.*

^a The reading (*volumina*) of the great majority of the MSS. is slightly confirmed by Pliny's speaking in the context of the preserving qualities of cedar resin. The headache apparently is that said to be given to those using the rolls for writing or reading. Detlefsen's *collyria* would be more attractive were *cedria* among the ingredients of Celsus' prescriptions (VI. vi. M 2 ff) for eye salves. *Lumina* (tapers, torches) is possible.

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ferret. defuncta corpora incorrupta aevis servat,
 viventia corrumpit, mira differentia, cum vitam
 18 auferat spirantibus defunctisque pro vita sit. vestes
 quoque corrumpit et animalia necat. ob haec non
 censeam in anginis hoc remedio utendum neque in
 cruditatibus.¹ quod suasere aliqui, gustatu. dentes
 quoque conluere ex aceto in dolore timuerim vel
 gravitati aut vermibus aurium instillare. portentum
 est quod tradunt abortivum fieri in venere ante per-
 fusa virilitate. phthiriasis perunguere eo non dubita-
 verim, item porrigines. suadent et contra venenum
 19 leporis marini bibere in passo. facilius in elephantiasi
 inlinant.² et ulcera sordida et excrescentia in his
 auctores quidam et oculorum albugines caliginesque
 inunxere eo et contra pulmonis ulcera cyathum eius
 sorberi iusserunt, item adversus taenias. fit ex eo et
 oleum quod pisselacon vocant, vehementioris ad
 omnia eadem usus. cedri scobe serpentes fugari
 certum est, item bacis tritis cum oleo si qui perun-
 quantur.

¹ cruditatibus *codd.*, *edd.*: raucitatibus *coll. Dioscoride coni. Mayhoff*; *nescio an recte.*

² inlinant V¹ *Sillig, Mayhoff*: inlinunt *Brotier, Dellefsen*: *varia codd.*

^a An instrumental ablative, although Pliny uses this case to express duration. Pliny also has *in aerum* XXXV. § 4.

^b Though there are no signs of variants in the MSS., it is likely enough that the conjecture *raucitatibus* (sore throat) of Mayhoff is correct, for Dioscorides has *παρισθμίων φλεγμοναῖς*. Corresponding to *gustatu*, however, is *περίχριστος*.

^c A mollusc, *Aplysia vulgaris*. Above, *phthiriasis* is (Greek *φθειριάσεις*) acc. pl.

^d "Pitch oil."

^e The mention of berries makes some commentators think that Pliny is here confusing cedar and juniper. But the "cedars" of this chapter are junipers.

It preserves dead bodies uncorrupted by time,^a but causes living ones to decay—a strange inconsistency, to rob the living of their life and to give a quasi-life to the dead! It also makes clothes decay and kills animal life. For this reason I should not think it ought to be used as a remedy for quinsy, or for indigestion,^b as some have recommended, taken by the mouth. I should also be afraid to rinse the teeth with it in vinegar, when they ache, or to drop it into the ears for hardness of hearing or worms. Gossip records a miracle: that to rub it all over the male part before coition prevents conception. I should not hesitate to use it as an ointment for phthiriasis or for scurf. It is also recommended to take it in raisin wine to counteract the poison of the sea hare,^c but more readily it might be used as liniment for leprosy. For foul sores and excrescences in them, and for spots and films on the eyes, certain authorities have prescribed it as an ointment, and have directed that a cyathus of it be drunk for sores on the lung, as well as for tapeworm. There is prepared from it an oil also, which they call pisse-laeon,^d used for all the same purposes, but of greater potency. It is well ascertained that snakes are kept away by the sawdust of cedrus, and that to rub the body with the crushed berries ^e mixed with oil has the same result.^f

^f There is a great similarity between this chapter and Dioscorides I. 77 (Wellmann). A few sentences may be quoted: *σηπτικὴν μὲν τῶν ἐμψύχων, φυλακτικὴν δὲ τῶν νεκρῶν σωμάτων. . . . σὺν ὅξει δὲ ἐγκλυζομένη σκώληκας τοὺς ἐν ὥσιν κτείνει. . . . εἰς τε ἐμβρῶματα ὀδόντος ἐνσταγεῖσα θραύει μὲν τὸν ὀδόντο, παύει δὲ τὴν ἀλγηδόνα . . . περιχρισθεῖσα δὲ αἰδοίῳ πρὸ τῆς συνουσίας ἀτόκιόν ἐστι, συναγκικῶν τε περιχριστός ἐστι καὶ παρισθμίων φλεγμοναῖς βοηθεῖ . . . πρὸς τε λαγωοῦ θαλασσίον*

- 20 XII. Cedrides, hoc est fructus cedri, tussim sanant, urinam cient, alvum sistunt, utiles ruptis, convulsis. spasticis, stranguriae, vulvis, ad antidota contra¹ lepores marinos eademque quae supra, collectionibus inflammationibusque.
- 21 XIII. De galbano diximus. neque umidum neque aridum probatur, et quale docuimus. per se bibitur ad tussim veterem, suspiria, rupta, convulsa. inponitur ischiadicis, lateris doloribus, panis, furunculis, corpori ab ossibus recedenti, strumis, articulorum nodis, dentium quoque doloribus. inlinitur et cum melle capitis ulceribus. purulentis infunditur auribus cum rosaceo aut nardo. odore comitialibus subvenit, et vulva strangulante vel in stomachi defectu. abortus non exeuntes trahit adpositu vel suffitu, item
- 22 ramo hellibori circumlitum atque subiectum. serpentes nidore urentium fugari diximus. fugiunt et perunctos galbano. medetur et ab scorpione percussis.

¹ ad antidota contra *Ianus*: contra aculeata *Dellefsen*: contra aconita *Mayhoff*: admoti contra *vulg.*: contra admota *codd.*

πόσις σὺν γλυκεῖ λαμβανομένη βοηθεῖ. ὠφελεῖ καὶ ἐλεφαντιῶντας . . . καθαίρει καὶ τὰ ἐν πνεύμονι ἔλκη καὶ ἰᾶται τὰτα ὅσον κύαθος ῥοφουμένη. The statements that Pliny records doubtfully appear in the Greek; but the great difficulty is, not to explain the similarities, but to account for the differences.

^a No restoration of this *locus corruptus* is really satisfactory. The vulgate, if *admoti* be changed to *admotae* (since *cedris* is feminine), is possible, but *vulvis admotae* sounds odd after a list of datives depending upon *utiles*. If the order of *contra admota* be sound, then *admota* has replaced some substantive, to recover which is next to impossible, as in chapter XII there is but a general resemblance to the end of Dioscorides I. 77, where we read ἔμμηνα ἄγουσι μετὰ πεπέρεως λείαι πινόμεναι, καὶ πρὸς λαγωῦ θαλασσίον κ.τ.λ. This, translated into Latin, would be nothing like Pliny's corrupt text. At the end of chap. 77,

XII. Cedrides, that is the fruit of the cedrus, cure *Fruit of the cedrus.* a cough, are diuretic, arrest looseness of the bowels, and are useful for ruptures, sprains, spasms, strangury and uterine affections, forming an ingredient of antidotes ^a for the poison of sea hares and those poisons mentioned above,^b and being used for gatherings and inflammations.

XIII. About galbanum I have already spoken.^c *Galbanum.* The best kind is considered to be that which is neither moist nor dry, and such as I have indicated. It is taken in drink by itself for chronic cough, asthma, ruptures and sprains; it is used as an application for sciatica, pains in the sides, superficial abscesses, boils, separation of flesh from bones, scrofulous sores, knotty lumps at the joints, and tooth-ache. With honey too it makes an ointment for sores on the head. With rose oil or nard it is injected for pus in the ears. Its smell is beneficial for epilepsy, choking of the uterus, and for weakness ^d of the stomach. A pessary or fumigation brings away the foetus when there is a miscarriage, and so will a branch of hellebore smeared with it and laid under the woman. I have said that snakes are kept off by the fumes caused by burning it;^e they do not come either near persons rubbed with galbanum. It heals also scorpion stings. A

however, Dioscorides has *μείγνυνται δὲ καὶ ἀντιδότοις*, which makes Jan's restoration slightly the most preferable.

^b The phrase *eadem quae supra* is vague, and it seems hopeless to try to identify *eadem*.

^c See XII. § 126.

^d Cf. XIX. § 92, *defectus praecipue stomachi excitat*. A favourite word of Pliny, *defectus* seems to mean the failure to function of any organ.

^e The active *urentium* is odd, but the meaning is certain, for XII. § 126 has *sincerum si uratur fugat nidore serpentes*.

bibitur et in difficili partu fabae magnitudine in cyatho vini, vulvasque conversas corrigit, cum murra autem et vino mortuos partus extrahit. adversatur et venenis, maxime toxicis, cum murra et vino. serpentes oleo et spondylio mixto tactu necat. nocere urinae existimatur.

23 XIV. Similis hammoniacy natura atque lacrimae, probandae ut diximus. mollit, calefacit, discutit, dissolvit. claritati visus in collyriis convenit, pruritus, cicatrices, albugines oculorum tollit, dentium dolores sedat, efficacius accensum. prodest dyspnoicis, pleuriticis, pulmonibus, vesicis, urinae cruentae, lieni, ischiadicis potum—sic et alvum solvit—articulis et podagrae cum pari pondere picis aut cerae et rosaceo coctum. maturat panos, extrahit clavos cum melle—sic et duritias emollit—lieni cum aceto et cera Cypria vel rosaceo efficacissime inponitur. lassitudines perungui cum aceto et oleo exiguoque nitro utile.

24 XV. Et styracis naturam in peregrinis arboribus exposuimus. placet praeter illa quae diximus maxime pinguis, purus, albicantibus fragmentis. medetur tussi, faucibus, pectoris vitiis, vulvae

^a *Toxicum* can be a mere synonym of *venenum*, but here it obviously refers to a special kind of poison. Cf. XVI. § 51, *sunt qui et toxica hinc appellata dicant venena—quae nunc toxica dicimus—quibus sagittae tinguntur.* Sec p. 8 note c.

^b Book XII. § 107.

^c The older editions punctuate so as to limit *efficacius* to *sedat*. This is probably right, for *accensum* must mean "alight," not "burnt," (as Bostock and Riley). So the meaning is, that a piece of the gum ammoniac is set alight and applied to the aching tooth. This is strange, not to say heroic treatment, and one wonders whether the text is corrupt, but there are no variants.

^d Mayhoff suggests *inlitum*, "applied."

piece the size of a bean is taken in a cyathus of wine for difficult deliveries, and it reduces a displaced uterus; while with myrrh and wine it brings away a dead foetus. With myrrh and wine it also counteracts poisons, particularly those used on arrows.^a Mixed with oil and spondylium it kills snakes if it but touches them. It is supposed to make urination difficult.

XIV. Similar is the nature of ammoniacum and of its tear, which should be tested in the way I mentioned.^b It softens, warms, disperses, and dissolves. In eye salves it promotes clearness of vision. It removes itch, scars, and white spots on the eyes, and relieves tooth-ache, more effectively when it has been set alight.^c It is good for difficulty of breathing, pleurisy, affections of the lungs and bladder, blood in the urine, diseases of the spleen, and sciatica, if it be taken in drink—thus administered it also loosens the bowels—and, boiled ^d with an equal weight of pitch or wax and with rose oil, it makes a good ointment for diseases of the joints and for gouty pains. It brings superficial abscesses to a head, and extracts corns, when mixed with honey—so applied it also softens indurations—and combined with vinegar and Cyprian wax or rose oil it makes a very effective application for diseases of the spleen. A rubbing with ointment made up of this gum, with vinegar, oil and a little soda, is a good remedy for fatigue.

XV. The nature of storax also I have spoken of in ^e *Storax*. my account of foreign trees. In addition to the qualities there mentioned, the most esteemed kind is very rich, unadulterated, and breaks up into white fragments. It cures coughs, affections of the throat,

^a See XII. § 124.

praeclusae duritieve laboranti, ciet menses potu adposituque, alvum mollit. invenio potu modico tristitiam animi resolvi, largiore contrahi, sonitus aurium emendare infusum, strumas illitum nervorumque nodos. adversatur venenis quae frigore nocent,¹ ideo et eicutae.

- 25 XVI. Spondylium una demonstratum infunditur capitibus phreneticorum et lethargicorum, item capitis doloribus longis cum oleo vetere;² bibitur et in iocinerum vitiis, morbo regio, comitialibus, orthopnoicis, vulvarum strangulatione, quibus et suffitu prodest. alvum mollit. illinitur ulceribus
- 26 quae serpunt cum ruta. flos auribus purulentis efficaciter infunditur, sed sucus, cum exprimitur, integendus est, quoniam mire adpetitur a muscis et similibus. radix derasa et in fistulas coniecta callum earum erodit. auribus quoque instillatur cum suco. datur et ipsa contra morbum regium et in iocineris vitio et vulvarum. capillos crispas facit peruneto capite.

¹ nocent *codd.*, *Deilefsen* : necent *Mayhoff*.

² *Sic dist. Mayhoff, Dioscoridem secutus*: longis. cum oleo vetere bibitur *ceteri edd.*

^a *Contrahere* is an unfortunate word to use in this context, as it can mean both (1) to cause, bring about, and (2) to cut short, lessen.

^b *Mayhoff's* conjecture *necent* (for *nocent* of the MSS.) would mean "kill."

^c See XII. § 128.

^d I think that the antecedent of *quibus* may be, not all the preceding nouns, but *vulvarum*, for *Dioscorides* has ὑποθυμώμενος δὲ ἀνακαλείται τοὺς καταφερομένους immediately after ὑστερικὴν πνίγα.

chest diseases, and obstructions or indurations of the uterus; by the mouth or as a pessary it acts as an emmenagogue; it loosens the bowels. I find in my authorities that a moderate dose dispels melancholy, but that a larger one causes^a it; that an injection cures singing in the ears, a local application scrofulous sores and knotty lumps on the sinews. It counteracts poisons that harm^b by chilling, and therefore, among others, hemlock.

XVI. Spondylium, which I described at the same time,^c is with old oil poured on the heads of sufferers from phrenitis, lethargus and headache of long standing. It is also taken in drink for affections of the liver, for jaundice, epilepsy, asthma, and choking of the uterus; for these^d fumigation is also beneficial. It loosens the bowels. With rue it is used as a liniment for spreading sores. The blossom^e is injected with good results into purulent ears, but the juice, when it is^f being extracted, must be covered over, since it has a wonderful attraction for flies and such-like insects. The shavings of the root inserted into fistulas eat away their callosities. They are also dropped with the juice into the ears. The root also itself is given for jaundice and for affections of the liver and of the uterus. If the head is rubbed with it,^g the hair becomes curly.

^e By "blossom" Pliny means the juice of the flowers, as we see from Dioscorides III. 76 (Wellmann): τοῦ δὲ ἄνθους χλῶρου ὁ χυλὸς πρὸς ἡλκωμένα ὦτα καὶ πυορροῦντα ἀρμόζει. Here once more Pliny and Dioscorides are very alike for a whole chapter, and the one can be safely checked by the other.

^f By using the present (*exprimitur*) Pliny implies that the juice must be at once covered up.

^g Again juice is meant, as is shown by *peruncto*.

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27 XVII. Sphagnos sive sphacos sive bryon et in Gallia, ut indicavimus, nascitur, vulvis insidentium utilis, item genibus et feminum tumoribus mixtus nasturtio et aquae salsae tritus. cum vino autem et resina sicca potus urinam pellit celerrime. hydro-picos inanit cum vino et iuniperis tritus ac potus.

XVIII. Terebinthi folia et radix collectionibus inponuntur. decoctum eorum stomachum firmat. semen in capitis dolore bibitur in vino et contra difficultatem urinae, ventrem leniter emollit, venerem excitat.

28 XIX. Piceae et laricis folia trita et in aceto decoctadentium dolori prosunt, prodest¹ cinis corticum intertrigini et ambustis. potus alvum sistit, urinam movet, suffitu vulvas corrigit. piceae folia privatim iocineri utilia sunt drachmae pondere in aqua mulsa pota. silvas eas dumtaxat quae picis resinaeque gratia radantur utilissimas esse phthisicis aut qui longa acgitudine non recolligant vires satis constat, et illum caeli aera plus ita quam navigationem Aegyptiam proficere, plus quam lactis herbidos per montium aestiva potus.

29 XX. Chamaepitys Latine abiga vocatur propter abortus, ab aliis tus terrae, cubitalibus ramis, flore pinus et odore. altera brevior et incurva, <foliis

¹ prosunt, prodest *Dellefsen* : prodest *codd.* : prosunt *vulg.* Post trita lacunam indic. *Dioscoridem secuti Ian., Mayhoff,* sic fere explendam : inflammationibus medentur, trita. Sed hoc loco non ita similes sunt *Plinius et Dioscorides.*

^a See XII. § 108.

^b *Privatim* is a difficult word in Pliny. Usually rendered "especially," it often suggests that the other things are excluded.

XVII. *Sphagnos*, or sphacos, or bryon, grows also, *Sphagnos* as I have ^a pointed out, in Gaul. It is useful in the sitz bath for uterine affections, and beaten up, and mixed with cress and salt water, it is also good for the knees and for swellings on the thighs. Taken in drink moreover, with wine and dry resin, it very quickly acts as a diuretic. Beaten up and drunk with wine and juniper berries, it drains off the water in dropsy.

XVIII. The leaves and root of the turpentine-tree *Turpentine tree (terebinth).* are applied locally to gatherings; a decoction of them strengthens the stomach. The seed is taken in wine for headache and strangury; it is a gentle aperient and an aphrodisiac.

XIX. The leaves of pitch-pine and of the larch *Pitch pine and larch.* crushed and boiled down in vinegar are good for toothache, and the ash of their bark for chafing and burns. Taken in drink it checks looseness of the bowels, is diuretic, and as a fumigation reduces a displaced uterus. The leaves of pitch-pine are specific ^b for affections of the liver, the dose being a drachma by weight taken in hydromel. It is well known that woods consisting only of those trees from which pitch and resin are scraped off are very beneficial to consumptives, or to those who cannot convalesce after a long illness, and that the air in districts so planted is more health-giving than a sea-voyage to Egypt, or than draughts of milk from cattle that have grazed along summer pastures in the mountains.

XX. The ground-pine, the Latin name of which is *The ground-pine.* *abiga*, because it causes abortion, and to some known as "earth-incense," has branches a cubit in length, with the flowers and the smell of the pine. A second species is shorter and bent, with leaves like those of

- aizoo>¹ similis. tertia eodem odore et ideo nomine quoque, parvula, cauliculo digitali, foliis scabris, exilibus, albis, in petris nascens, omnes herbae, sed propter cognationem nominis non differendae. pro-
sunt adversus scorpionum ictus, item iocineri inlitae
cum palmis aut cotoneis; renibus et vesicae decoctum
30 earum cum farina hordeacea. morbo quoque regio
et urinae difficultatibus ex aqua decoctae bibuntur.
novissima contra serpentes valet cum melle, sic et
adpositu vulvas purgat. sanguinem densatum extra-
hit pota. sudores facit perunctis ea, peculiariter
renibus utilis. fiunt ex ea et hydropicis pilulae cum
fico alvum trahentes. lumborum dolorem victoriati
pondere in vino finit et tussim recentem. mortuos
partus ex aceto cocta et pota eicere protinus dicitur.
31 XXI. Cum honore et pityusa simili de causa
dicetur, quam quidam in tithymali genere numerant.
frutex est similis piceae, flore parvo purpureo. bilem
et pituitam per alvum detrahit radix decocti² hemina
aut seminis lingula in balanis. folia in aceto decocta
furfures cutis emendant, mammas quoque mixto
rutae decocto et tormina et serpentium ictus et in
totum collectiones incipientes.

¹ incurva, <foliis aizoo> ex Dioscoride coni. Mayhoff, sed in extu lacunam indicat: incurvae E(?) vulg.: incurva VdX.

² decoctā vel decoctā vel radiceis decoctae coni. Warmington.

^a The correction of Mayhoff makes good sense, and corresponds to Dioscorides III. 158 (Wellmann): φύλλα δὲ ἔχει ὅμοια ἀειζώω. But it is very conjectural. The vulgate *incurvae* has little MS. support, and *incurvae similis* ("like one bent") is an odd phrase.

^b All three are *plants*, with a name derived from the tree πίτυς.

^c "Sive conglobatum . . . quod in praecipitatis potissimum evenit." (Didot edition from Hardouin.)

aizoüm.^a A third variety has the same smell, and therefore also the same name; it is rather small, with a stem as thick as a finger, and with rough, slender, pale leaves, growing on rocky soils. All three are ^b plants, not trees, but should be considered here because their names are derived from that of the pine. They are good for the stings of scorpions, and also for the liver when applied with dates or quinces, as is a decoction of them with barley meal for the kidneys and bladder. Decoctions of them in water are taken also for jaundice and for strangury. The last mentioned kind mixed with honey counteracts the poison of serpents, and in this form too purges the uterus when used as a pessary. Taken as drink it draws away extravasated blood.^c Rubbing with it promotes perspiration, and it is particularly good for the kidneys. It is also made up into pills with figs for dropsy; these purge the bowels.^d In doses of one victoriatus by weight in wine it ends lumbago, and also coughs if taken in good time. A decoction in vinegar taken as a drink is said to expel at once the dead foetus.

XXI. For a like reason honourable mention shall *Pityusa* be made of pityusa also, which some include in the same class as tithymalus. It is a shrub like the pitch-pine, with a small, purple ^e flower. Bile and phlegm are carried off in the stools by a decoction of the root, the dose being one hemina, and by suppositories made of a spoonful of the seed. A decoction of the leaves in vinegar removes scaly eruptions on the skin and, mixed with a decoction of rue, is good for affections of the breasts, for griping pains, for snake bites and for gatherings in general in their early stages.

^a Or, "pills, which with fig purge etc." It is implied that this relieves the dropsy.

^e A mistake.

- 32 XXII. Resinam e supra dictis arboribus gigni docuimus et genera eius et nationes in ratione vini, ac postea in arboribus. summae species duae, sicca et liquida. sicca e pinu et picea fit, liquida terebintho, larice, lentisco, cupresso. nam et hae ferunt
 33 in Asia et Syria. falluntur qui eandem putant esse e picea atque larice. picea enim pinguem et turis modo sucosam fundit, larix gracilem ac mellei coloris, virus redolentem. medici liquida raro utuntur et in
 34 —nec pinea magnopere in usu—ceteris non nisi coctis. et coquendi genera satis demonstravimus. arborum differentia placet terebinthina odoratissima atque levissima, nationum Cypria et Syriaca, utraque mellis Attici colore, sed Cypria carnosior crassiorque. in sicco genere quaerunt ut sit candida, pura, perlucida, in omni autem ut montana potius quam campestris, item aquilonia potius quam ab alio vento. resolvitur resina ad vulnerum usus et malag-
 35 mata oleo, in potiones¹ amygdalis amaris. natura in medendo contrahere vulnera, purgare, discutere collectiones; item pectoris vitia terebinthina.² inlinitur eadem calida membrorum doloribus spatia-

¹ *Fortasse excidit cum ante amygdalis.*

² item pectoris vitia terebinthina] *dist. ego*: item pectoris vitia. terebinthina *Dellefsen*: lenit pectoris vitia terebinthina; *Mayhoff*.

^a See XIV. § 122.

^b See XVI. § 38.

^c To which does *hae* refer?

^d See XVI. § 54.

^e The bare ablative appears strange. Perhaps the juice of the almonds has, or was supposed to have, a softening effect. Perhaps almond oil is meant. See XXV § 118.

XXII. That resin is derived from the trees mentioned above, with its various kinds and native regions, I have stated in my account of wine,^a and afterwards ^b when dealing with trees. The most general classes are two—the dry resin and the liquid. Dry resin comes from the pine and the pitch-pine, the liquid from the terebinth, larch, lentisk and cypress. For in Asia and Syria these last ^c also produce it. They are mistaken who think that the same resin comes from the pitch-pine as comes from the larch. For the pitch-pine exudes a resin that is rich, and like frankincense in consistency, while the larch produces a thin resin with the colour of honey and a very offensive odour. Medical men use liquid resin only occasionally, generally that from the larch and administered in egg, for coughs and ulcerated bowels, nor is that from the pine much used; the others are only employed after boiling. The various ways of boiling I have fully explained.^d Of the various trees producing resin, the favourite is the terebinth, which yields one highly scented and very light; of the regions, Cyprus and Syria are most favoured; both resins are of the colour of Attic honey, but the Cyprian is thicker, with more body in it. In the dry kind the qualities looked for are whiteness, purity and transparency; in every kind, however, that from a mountain soil is preferred to that from the plains, and a north-east aspect produces more highly esteemed resin than any other. Resin is dissolved in oil for the treatment of wounds and for poultices; by means of ^e bitter almonds when used for draughts. Its medical properties are to close wounds, to act as a detergent, and to disperse gatherings; terebinth resin is also good for chest complaints. The last when warmed is used as

- tisque¹ in sole avellitur,² et totis corporibus mangonum maxime³ cura ad gracilitatem emendandam, spatiis ita laxantium cutem per singula membra,
- 36 capacioresque ciborum facienda corpora. proximum locum optinet e lentisco. inest ei vis adstringendi, movet at ante ceteras urinam. reliquae ventrem molliunt, cruda concocunt, tussim veterem sedant, vulvae onera extrahunt etiam suffitae. privatim adversantur visco, panos et similia cum sebo taurino et melle sanant. palpebras lentiscina commodissime replicat, fractis quoque utilissima et auribus purulentis, item in pruritu genitalium. pinea capitis vulneribus optime medetur.
- 37 XXIII. Pix quoque unde et quibus conficeretur modis indicavimus, et eius duo genera, spissum liquidumque. spissarum utilissima medicinae Bruttia, quoniam pinguiissima et resinosissima utraque praebet utilitates, ob id magis rutila quam ceterae. id enim quod in hoc adiciunt, ex mascula arbore meliorem esse, non arbitror posse intellegi.
- 38 picis natura excoalfacit, explet. adversatur privatim cerastae morsibus cum polenta, item anginae cum

¹ spatiatisque] spasticisque *Mayhoff*; *sed vide infra* spatiis.

² avellitur *plures codd.*, *Dellefsen* : abluitur *Mayhoff*, qui in sole abluitur *in parenthesi ponit*.

³ maxime] *An maxima?*

^a *Mayhoff's* text : " and for cramps—it is washed off in the sun—."

^b For *privatim* see note *b* XXIV. 28, p. 24.

^c See XIV. § 127 foll., and XVI. § 52 foll.

^d That is, of resin and of pitch.

an ointment for pains in the limbs ; it is removed after a walk has been taken ^a in the sun. Slave-dealers especially are anxious to use this ointment for rubbing over the whole bodies of their slaves, with the object of correcting thinness ; by walks afterwards they loosen the skin of every limb, and they have the further object of making possible the assimilation of a greater quantity of food. Next in popularity after terebinth resin comes that from the lentisk, which has an astringent quality and is more diuretic than the others. The rest of the resins loosen the bowels, cure indigestion, relieve chronic coughs, and also, when used as a fumigation, remove obstructions in the uterus. These are specific ^b for the poison of mistletoe, and with beef suet and honey they heal superficial abscesses and similar affections. Lentisk resin is a most excellent remedy for turning outwards ingrowing eye-lashes, and is also very useful for fractures and for pus in the ears, and also for irritation of the genitals. Pine resin is a very good remedy for wounds in the head.

XXIII. Pitch too, its source and the methods of *Pitch.* preparing it, I have already ^c mentioned, as well as its two kinds, the thick and the thin. Of the thick pitches the most useful in medicine is the Bruttian, because being both very rich and very resinous it combines the useful properties of both, ^d the yellow-red kind being of higher value than any other because of this combination. For the further opinion about pitch, that the male tree produces a better kind, cannot I think be entertained. The nature of pitch is to warm, and to fill out the flesh. Mixed with pearl barley it is a specific antidote for the bite of the horned viper, and with

melle, destillationibus et sternutamentis a pituita. auribus infunditur cum rosaceo, inlinitur cum cera.¹ sanat lichenas, alvum solvit, excreationes pectoris adiuvat ecligmate aut inlitis tonsillis cum melle. sic et ulcera purgat, explet. cum uva passa et axungia carbunculos purgat et putrescentia ulcera, quae vero serpunt cum pineo cortice aut sulphure.

- 39 phthisicis cyathi mensura quidam dederunt et contra veterem tussim. rhagadas sedis et pedum panosque et ungues scabros emendat, vulvae duritias et conversiones, odore item lethargicos.² strumas cum farina hordeacea et pueri inpubis urina decocta ad suppurationem perducit. et ad alopecias sicca piccuntur, ad mulierum mammas Bruttia ex vino subfervefacta cum polline farraceo quam calidissimis³ inpositis.

- 40 XXIV. Liquida pix oleumque quod pisselaeon vocant quemadmodum fieret diximus. quidam iterum decocunt et vocant palimpissam. liquida anginae perunguntur intus. iuvat⁴ aurium dolores, claritatem oculorum, oris circumlitiones, suspiriosos,⁵ vulvas, tussim veterem et crebras excreationes

¹ inlinitur cum cera.] *Haec verba post pituita ponenda esse putat Mayhoff, fortasse recte.*

² lethargicos.] *Ita dist. Urlichs.*

³ calidissimis] *hic linteis add. Mayhoff.*

⁴ iuvat aurium *Dellefsen*: et uva, <oleum iuvat> aurium *coni. Mayhoff.*

⁵ suspiriosos *Alexander Benedictus* (1507), *Mayhoff*: *suspiriosas multi codd.*

^a Mayhoff would transpose the second part of this sentence to the end of the preceding.

honey a good remedy for quinsy, catarrhs and sneezing caused by phlegm. Mixed with rose oil it is poured into the ears, and with wax it is compounded into an ointment.^a It heals lichen and relaxes the bowels; expectoration it eases if used as an electuary or applied to the tonsils in combination with honey. So used it also cleanses sores and fills them out. With raisins and axle-grease it cleanses carbuncles and festering sores; for creeping sores, however, it is combined with pine bark or sulphur. Some authorities have prescribed it in doses of one cyathus for consumption and chronic cough. It cures chaps in the seat, and on the feet, superficial abscesses, scabrous nails, indurations and displacements of the uterus, and lethargus by inhalation.^b Scrofulous sores it causes to suppurate if boiled with barley meal and the urine of a child not yet adolescent. Dry pitch is also used for mange; Bruttian pitch heated in wine, with wheat meal, is applied to the breasts of women, the applications being as hot as can be borne.^c

XXIV. How liquid pitch and the oil called *Liquid pitch.* pisselaeon^d are made has been described already.^e Some boil it down twice and call it palimpissa.^f Liquid pitch is employed for painting quinsy internally. It is good for ear-ache, for promoting clearness of vision, for use as a lip-salve, for asthmatics, the uterus, chronic cough, frequent expectoration, cramp, ner-

^b Perhaps the comma should be transferred from *conversiones* to *odore*, thus making "by inhalation" apply to uterine troubles.

^c Mayhoff's *linteis* means linen swabs used for the applications.

^d *I.e.* "pitch oil."

^e See XVI. § 52.

^f *I.e.* "pitch (boiled) twice."

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pectoris, spasmos, tremores, opisthotonos, paralysis, nervorum dolores, praestantissimum ad canum et iumentorum scabiem.

- 41 XXV. Est et pissasphaltos mixta bitumini pice naturaliter ex Apolloniatarum agro. quidam ipsi miscent. praecipuum ad scabiem pecorum remedium aut si fetus mammas laeserit matrum.¹ optimum ex eo quod cum fervet innatat.

XXVI. Zopissam eradi navibus diximus cera marino sale macerata. optima haec a tirocinio navium. additur autem in malagmata ad discutiendas collectiones.

XXVII. Taeda decocta² in aceto dentium dolores efficaciter conluunt.

- 42 XXVIII. Lentisci ex arbore³ et semen et cortex et lacrima urinam cient, alvum sistunt. decoctum eorum ulcera quae serpunt fotu. inlinitur umidis⁴ et igni sacro, gingivas conluit. folia dentibus in dolore⁵ atteruntur, mobiles decocto conluuntur, capillum tinguit.⁶ lacrima sedis vitiis prodest, cum quid siccari exalifierive opus sit. decoctum et e lacrima⁷ stomacho utile, ructum et urinam movens,

¹ matrum *veterem lectionem secuti Sillig, Dellefsen*: nativum *Mayhoff*, qui punctum post laeserit ponit: maturum *codd.*

² taeda decocta *Dellefsen*: taedae decoctae *Mayhoff*, qui ex *Plinio iuniore* lacunam sic explet, in astulas concisae: *varia codd.*

³ lentisci ex arbore *Dellefsen*: lentisci arboris *Mayhoff*: lentiscis *EX*: arbores *EV vulg.*

⁴ umidis *Warmington*: in umidis *codd.*

⁵ in dolore *vulg.*, *Mayhoff*: dolore *codd.*, *Dellefsen*.

⁶ tinguit *codd.*, *Dellefsen*: tingunt *vulg.*, *Mayhoff*.

⁷ e lacrima *codd.*: in uncis *Mayhoff*: et delere vult *Sillig*.

^a See Dioscorides I. 73 § 1 (Wellmann): ἐν Ἀπολλωνία τῇ πρὸς Ἐπιδάμνῳ.

^b With *Mayhoff's* reading: "The best natural kind is that which, etc."

vous tremors, opisthotonic tetanus, paralysis, pains in the sinews, and most effectively for itch-scab in dogs and beasts of burden.

XXV. There is also pissasphaltos, that is pitch *Pissasphaltos.* combined with bitumen, found in a natural state in the territory of Apollonia ;^a it is sometimes made artificially. It is a specific for itch-scab in cattle and for the sores caused by the young on the teats of their mothers. The best part ^b of it is that which floats on the surface when it is boiled.

XXVI. Zopissa, as I have said,^c is scraped off ships, *Zopissa.* wax being soaked in sea brine. The best is taken from ships after their maiden voyage. It is also added to poultices to disperse gatherings.

XXVII. A decoction in vinegar of pitch pine ^d makes an efficacious wash for aching teeth.

XXVIII. Of the lentisk tree the seed, bark and *The lentisk tree.* gum-drops are diuretic, and astringent to the bowels. A decoction of them is a useful fomentation for creeping sores. It makes a liniment for moist sores and also for erysipelas, and it rinses the gums. The leaves are rubbed on the teeth when ^e they ache; loose teeth are rinsed with the decoction, which also dyes the hair. The gum-drops are good for troubles of the seat, when there is a call for a drying and warming remedy. The decoction too of the gum is useful for the stomach, being carminative and diuretic, and is

^c See XVI. § 56. Has *pice cum* been lost before *cera*? See *ibid.*: *zopissam vocari derasam navibus maritimis picem cum cera.*

^d Mayhoff from Pliny Junior: "Pitch pine cut into shavings and boiled in vinegar."

^e In the MSS. the preposition *in* is found before *umidis*, where it is not wanted, and omitted before *dolore*, where it is. Perhaps it got misplaced in the archetype.

- quod et capitis doloribus cum polenta illinitur.
- 43 folia tenera oculis inflammatis illinuntur. mastiche lentisci replicandis palpebris et ad extendendam cutem in facie et zmegmata adhibetur, et sanguinem reicientibus, tussi veteri, et ad omnia quae acaciae vis.¹ medetur et attritis partibus sive oleo e semine eius facto ceraeque mixto, sive foliis ex oleo decoctis, sive cum aqua ita² foveantur. scio Democratem medicum in valitudine Considiae M. Servili consularis filiae omnem curationem austeram recusantis diu efficaciter usum lacte caprarum quas lentisco pascebat.
- 44 XXIX. Platani adversantur vespertilionibus, pilulae earum in vino potae denariorum IIII pondere omnibus serpentium et scorpionum venenis, item ambustis. tunsae autem cum aceto acri magisque scillite sanguinem omnem sistunt et lenti-
ginem et carcinomata malandriasque veteres addito
45 melle emendant. folia autem et cortex inlinuntur collectionibus et suppurationibus, et decoctum eorum, corticis autem in aceto dentium remedium est, foliorum tenerrima in vino albo decocta oculorum. lanugo florum³ et auribus et oculis inutilis. cinis pilularum sanat ambusta igni vel frigore. cortex e vino scorpionum ictus restinguit.

¹ quae acaciae vis ex *Dioscoride Sillig, Dellefsen, Mayhoff*: quaevis, qua eius, quae eis, que vis *codd.*: quae hammoniacci vis *vulg.*

² ita *Mayhoff*: ut ita *VdT*: utilia X: virilia *Hermolaus Barbarus*. *Mayhoff* ita emendat: si hae cum aqua ita foveantur.

³ florum *coni. Warmington*: foliorum *codd.*

also applied with pearl barley for headache. The tender leaves are applied to inflamed eyes. The mastic of the lentisk is applied for bending back the eye-lashes, for filling out and smoothing the skin of the face, being also useful for spitting of blood, chronic cough, and in all cases where the medical properties of gum acacia are called for. Abrasions are treated by applying the oil made from the seed of lentisk mixed with wax, or a decoction of the leaves in oil; or they may be fomented with these preparations and water. I know for a fact that when the illness of Considia, daughter of Marcus Servilius, a consular, long^a resisted all rigorous treatment, it was cured by the physician Democritus, who used the milk of goats which he fed on the lentisk.

XXIX. The plane tree neutralizes the poison of the bat; its seed-globules taken in wine in a dose of four denarii act similarly on all poisons of serpents and scorpions, besides healing burns. Pounded moreover with strong vinegar, especially squill-seasoned vinegar, it checks all bleeding, and with the addition of honey removes freckles, cancerous sores and chronic pustules on the neck. The leaves moreover and bark make ointment for gatherings and suppurations, and so does a decoction of them; a decoction of the bark in vinegar is a remedy for sore teeth, but for the eyes a decoction of the most tender leaves in white wine must be made. The down of the flowers is harmful both to the ears and to the eyes. The ashes of the burnt globules heal burns and frost-bites. The bark in wine allays the stings of scorpions.

^a Littré takes *diu* with *usum*. Query: "who refused rigorous treatment."

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46 XXX. Fraxinus quam vim adversus serpentes haberet indicavimus. semen foliis eius inest, quae¹ medentur iocineris, laterum doloribus in vino, aquam quae subit cutem extrahunt. corpus obesum levant onere sensim ad maciem reducentia,² isdem foliis cum vino tritis ad virium portionem, ita ut puero quinque folia tribus cyathis diluantur,³ robustioribus septem folia quinis vini. non omittendum ramenta eius et scobem a quibusdam cavenda praedici.

XXXI. Aceris radix contunsa e vino iocineris doloribus efficacissime inponitur.

47 XXXII. Populi albae uvarum in unguentis usum exposuimus. cortex potus ischiadicis et stranguriae prodest, foliorum sucus calidus aurium dolori. virgam populi in manu tenentibus intertrigo non metuatur.⁴ populus nigra efficacissima habetur quae in Creta nascitur. comitialibus semen ex aceto utile.⁵ fundit illa et resinam exiguam, qua utuntur ad malagmata. folia podagris in aceto decocta inponuntur.umor e cavis populi nigrae effluens et⁶

¹ quae cum duobus codd., vulg., Sillig, Detlefsen : quo cum duobus Mayhoff.

² reducentia codd. : reducentibus Mayhoff.

³ diluantur cum duobus codd. Detlefsen : dirivantur E : dentur vulg. : diribeantur Mayhoff qui confert XI. § 44 et XXXVI. § 118.

⁴ metuatur aut metuitur codd.

⁵ utile Mayhoff : inditur Detlefsen : in codd.

⁶ et attritu odoratus] post papulasque (sed cum vv. ll.) codd. ; transposuit Urlichs ; est attritu odoratus in parenthesi Mayhoff.

^a See XVI. § 64.

^b I.e. the "wings," in each of which a seed lies.

^c I.e. winged seeds.

^d Book XII. § 132. Uvarum seems to refer to catkins.

^e Dioscorides I. 83 (Wellmann) says : τὸ ἐξ αὐτῶν δάκρυον

XXX. The power of the ash-tree to neutralize the *The ash.* poison of snakes I have already mentioned.^a The seed lies between its leaves,^b which in wine are used for pains in the liver and sides, and draw off the subcutaneous water of dropsy. They lessen corpulence, gradually reducing the body to leanness. These leaves^c are also beaten up with wine in proportion to the strength of the body; for a child five leaves are soaked in three cyathi of wine, for stronger patients seven leaves in five cyathi. I must not forget the warning of some authorities, who declare that the shavings and sawdust of the ash are to be avoided.

XXXI. The root of the maple crushed in wine *The maple.* makes a very efficacious application for pains of the liver.

XXXII. The clusters of the white poplar, as I have *The white* already described,^d are used in making unguents. A *poplar.* draught made from the bark is good for sciatica and strangury, and the juice of the leaves, warmed, for ear-ache. Those who hold in their hand a twig of poplar need not fear chafing between the legs. The *The black* black poplar that grows in Crete is considered the *poplar.* most efficacious; the seed in vinegar is good for epilepsy. It also discharges a small quantity of resin, which is used for poultices. A decoction of the leaves in vinegar is applied locally for gout. The moisture exuding from the hollows of the black poplar, and giving out an odour^e when applied with rubbing,

. . . καταχέομενον πήγνυσθαι καὶ γίνεσθαι τὸ καλούμενον ἤλεκτρον . . . εὐώδες ἐν τῇ παρατρίψει. This points to a lacuna in the text of Pliny (or possibly to a mistake or omission on the part of Pliny himself), for though ἤλεκτρον could easily be rubbed, an *umor* could only be used in rubbing something else. Yet Pliny's *attritu odoratus* is obviously a translation of something like εὐώδες ἐν τῇ παρατρίψει.

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attritu odoratus verrucas papulasque tollit. populi ferunt et in foliis guttam ex qua apes propolim faciunt. gutta quoque ad quae propolis ex aqua efficax.

48 XXXIII. Ulmi et folia et cortex et rami vim habent spissandi et volnera contrahendi. corticis utique interior tilia lepras sedat et folia ex aceto inlita. corticis denarii pondus potum in hemina aquae frigidae alvum purgat pituitasque et aquas privatim trahit. inponitur et collectionibus lacrima et volneribus et ambustis quae decocto fovere prodest.

49 umor in folliculis arboris huius nascens cuti nitorem inducit faciemque gratiorem praestat. cauliculi foliorum primi vino decocti tumores sanant extrahuntque per fistulas. idem praestant et tiliae corticis. multi corticem commanducatum volneribus utilissimum putant, folia trita aqua adpersa pedum tumori. umor quoque e medulla, uti diximus, castratae arboris effluens capillum reddit capiti inlitis defluentesque continet.

50 XXXIV. Arbor tilia lenius ad eadem fere utilis est atque¹ oleaster. folia autem tantum in usu et ad infantium ulcera et in ore, et commanducata et decocta urinam cient, menses sistunt inlita, sanguinem pota detrahunt.

¹ atque cum codd. fere omnibus Dellefsen : ad quae cum X Mayhoff, qui atque contra Plinii usum esse dicit.

^a This seems to be the meaning of *spissare* here because of *volnera contrahendi* immediately following. *Spissare* is a common word in Pliny, usually without an expressed object, but in XXVI. § 46 *ad spissanda corpora* seems to mean "to give tone to (harden?) the body," as in Celsus II. i. § 10.

removes warts and pimples. Poplars also produce on their leaves drops from which bees make bee-glue. With water these drops also have the same healing properties as bee-glue.

XXXIII. The leaves, bark and branches of the elm *The elm.* are styptic,^a and have the property of closing wounds. The inner bark in particular relieves leprous sores, as also does a local application of the leaves soaked in vinegar. One denarius of the bark, taken in a hemina of cold water, purges the bowels, being specific for carrying off phlegms and watery humours. Its tear is also applied locally to gatherings, wounds and burns, which it is good to foment with a decoction. The moisture forming in the pods of this tree brings a brightness to the skin and makes the looks more pleasing. The tips of the little stalks of the leaves boiled down in wine cure tumours and draw out the pus through fistulas. The same property is shown by the inner barks. Many hold that the bark when chewed is very good for wounds, and that the leaves, pounded and sprinkled with water, are so for swollen feet. An application of the moisture too, that exudes, as I have said,^b from the pith of the tree when lopped, restores hair to the scalp and prevents it from falling out.

XXXIV. The linden tree is good for practically *The linden.* the same purposes as the wild olive, but its action is milder. Only its leaves, however, are used both for babies' sores and for those in the mouth; they may be chewed or a decoction may be made of them; they are diuretic. Applied locally they check menstruation; taken in drink they draw off extravasated blood.

^b Book XVI. § 192.

- 51 XXXV. *Sabucus* habet alterum genus magis silvestre quod Graeci *chamaeacten*, alii *helion*¹ vocant, multo brevius. utriusque decoctum in vino veteri, foliorum vel seminis vel radicis, ad cyathos binos potum stomacho inutile est,² alvo detrahens aquam. refrigerat etiam inflammationem, maxime recentis ambusti,³ et canis morsum cum polenta mollissimis foliorum inlitis. sucus cerebri collectiones privatimque membranae quae circa cerebrum
52 est lenit infusus. acini eius infirmiores quam reliqua; tingunt capillum, poti acetabuli mensura urinam movent. foliorum mollissima ex oleo et sale eduntur ad pituitam bilemque detrahendam. ad omnia efficacior quae minor. radicis eius decoctae in vino duo cyathi poti hydropicos exinaniunt, volvas emolliunt, has et foliorum decocta⁴ insidentium. caules teneri mitioris⁵ *sabuci* in patinis cocti alvum solvunt, resistunt folia et serpentium ictibus in
53 vino pota. *podagricis* cum sebo hircino vehementer prosunt cauliculi inliti; iidem in aqua macerantur ut sparsa ea pulices necentur. foliorum decocto si locus spargatur, muscae necantur. *boa* appellatur morbus popularum, cum rubent corpora; *sabuci* ramo verberatur. cortex interior tritus ex vino albo potus alvum solvit.

¹ *helion*] *add. acten e Dioscoride* (ἐλεῖος ἀκτὴ) H. Hafter.

² *est cum codd. Dellefsen* : set *ex Dioscoride* (μέντοι) *coni. Mayhoff.* Pro inutile fortasse utile, quod in X invenitur.

³ *recentis ambusti codd.* : *recentia ambusta Mayhoff.*

⁴ *decocta codd.* : *decoctum Mayhoff.*

⁵ *minoris coni. Warmington coll.* § 51 : *mitioris codd.*

^a *Infundo* is used of administering food and drink generally or of medicine in particular. Sometimes, but not as often as might be expected, it is used of injections. Here it seems to be used, not of injections into the skull, but of anointing.

XXXV. The elder has a second, a much smaller *The elder.* species, growing wilder and called by the Greeks chamaeacte, by others helion. A decoction in old wine of the leaves, seed, or root, of either species, taken as drink up to two cyathi for a dose, is bad for the stomach, though carrying off watery humours from the bowels. It also reduces inflammation, especially that of a recent burn, and a dog-bite is relieved by a poultice of its most tender leaves with pearl barley. An application ^a of the juice softens gatherings on the brain, being specific when these are on the membrane that surrounds it. Its berries have weaker properties than the other parts. They dye the hair. A dose of one acetabulum taken in drink is diuretic. The softest of the leaves are eaten with oil and salt to bring away phlegm and bile. For all purposes the smaller kind is the more efficacious. A decoction of the root in wine, taken in doses of two cyathi, draws off the water of dropsy; it also softens the uterus, as does also sitting in baths of a decoction of the leaves. The tender stalks of the cultivated elder boiled in a saucepan relax the bowels; the leaves taken in wine also counteract the bites of snakes. An application of young shoots with goat-suet is very good for gout; these are also steeped in water to kill fleas by sprinkling. If a place is sprinkled with a decoction of the leaves flies are killed. Boa ^b is the name given to a disease when the body is red with pimples; beating with a branch of elder is administered as a remedy. The inner bark pounded and taken in white wine relaxes the bowels.

^b Hardouin was wrong in supposing it to be measles, because that disease was probably not known until the time of Rhazes. See list of diseases.

- 54 XXXVI. Iunipirus vel ante cetera omnia excalfacit, extenuat, cedro alias similis. et huius duo genera, altera minor altera. utraque accensa serpentes fugat. semen stomachi, pectoris, lateris doloribus utile. inflationes algoresque discutit, tusses, con-
 55 coquit duritias. inlitum tumores sistit, item alvum bacis ex nigro vino potis, item ventris tumores inlitis. miscetur et antidotis, oxyporis; urinas ciet. inlinitur et oculis in epiphoris. datur convolsis, ruptis, torminibus, volvis, ischiadicis cum vino albo potum pilulis quaternis aut decoctis viginti in vino. sunt qui et perunguant corpus ¹ e semine eius in serpentium ictus.²
- 56 XXXVII. Salicis fructus ante maturitatem in araneam abit, sed, si prius colligatur, sanguinem reicientibus prodest. corticis e ramis primis cinis clavum et callum aqua mixta sanat. vitia cutis in facie emendat, magis admixto suco suo. est autem hic trium
 57 generum: unum arbor ipsa exsudat cummum modo, altero manat in plaga, cum floret. exciso cortice trium digitorum magnitudine. hic ³ ad expurganda quae obstant oculis, item ad spissanda quae opus sunt ciendamque urinam et ad omnes collectiones intus extrahendas. tertius sucus est detruncatione ramo-

¹ *Post corpus excidisse suco putat Mayhoff.*

² ictus VT f, *Detlefsen*: metu *vulg.*, *Mayhoff*: metus EX.

³ hic *codd.*: vis *Mayhoff*.

^a Hard swellings or abscesses.

^b Galen uses *ὀξύπορον* (or *ὀξυπόριον*) of a carminative, a sense that suits very well XX. § 65 and § 256. *Mayhoff* is surely right in putting a comma after *antidotis*, avoiding in this way the awkwardness of taking *oxyporus* as an adjective ("quick-acting"). Cf. *Dioscorides* III. 57: *μειγνύμενον ταῖς ἀντιδότοις καὶ ὀξυπόροις χρησίμως*.

^c *Mayhoff's vis* would mean: "Its property is to clear away, etc."

XXXVI. The juniper, even above all other remedies, *The juniper.* is warming and alleviates symptoms; for the rest, it resembles the cedrus. Of it there are two species, one smaller than the other. Either kind when set on fire keeps off snakes. The seed is beneficial for pains in the stomach, chest and side, dispels flatulence and the feeling of chill, relieves coughs and matures indurations.^a Applied locally it checks tumours; the berries taken in dark wine bind the bowels, and a local application reduces tumours of the belly. The fruit is also an ingredient of antidotes and of digestive remedies,^b and is diuretic. It is also applied locally to the eyes for fluxes, and it is used for sprains, ruptures, colic, uterine disorders and sciatica, either in doses of four berries with white wine, or a decoction of twenty in wine. There are also some who smear the body with an extract of the seed as a protection against snake-bite.

XXXVII. The fruit of the willow before maturity *The willow.* develops a kind of cobweb, but if it be gathered earlier it is good for the spitting of blood. Mixed with water, the ash from the burnt bark of the tips of the branches cures corns and callosities. It removes spots on the face, more thoroughly when mixed with willow juice. This juice, however, is of three kinds: one exudes like gum from the tree itself; the second flows from an incision, three fingers wide, made in the bark while the tree is in blossom. This sort ^c is useful for clearing away humours that obstruct the eyes, also for thickening ^d where that is necessary, for promoting urine and for draining outwards all gatherings. The third kind of juice is obtained by lopping

^a The word *spissare* is difficult. See note on XXIV § 48.

- rum a falce distillans. ex his ergo aliquis cum rosaceo
in calyce punici calfactus auribus infunditur vel folia
58 cocta et cum cera trita imponuntur.¹ item podag-
ricis cortice et foliis in vino decoctis foveri nervos
utilissimum. flos tritus cum foliis furfures purgat in
facie. folia contrita et pota intemperantiam libidinis
coercent atque in totum auferunt usum saepius
sumpta. Amerinae nigrae semen cum spuma argenti
pari pondere a balneo inlitum psilotrum est.
- 59 XXXVIII. Non multum a salice vitilium usu distat
vitex, foliorum quoque adspectu, nisi odore gravior
esset. Graeci lygon vocant, alias agnon, quoniam
matronae Thesmophoriis Atheniensium castitatem
custodientes his foliis cubitus sibi sternunt. duo
genera eius: maior in arborem salicis modo adsurgit,
minor ramosa, foliis candidioribus, lanuginosis.
prima album florem mittit cum purpureo, quae et
candida vocatur, nigra quae tantum purpureum.
- 60 nascuntur in palustribus campis. semen potum vini
quendam saporem habet et dicitur febres solvere et,
cum unguantur oleo admixto, sudorem facere, sicut
lassitudinem dissolvere. urinam cient et menses.
caput temptant vini modo—nam et odor similis
est²—inflationes pellunt in inferiora, alvum sistunt,
- 61 hydropicis et lienibus perquam utiles. lactis uber-
tatem faciunt, adversantur venenis serpentium,

¹ *Ita dist. Mayhoff, Dioscoridem et Serenum secutus. Comma post imponuntur, punctum post podagricis Dellefsen.*

² *est cum tribus codd. Dellefsen: et cum duobus Sillig: set Mayhoff.*

^a Or, "from" or "after using." Cf. *a balneo* § 58.

^b The plural verb seems to imply that either kind of agnus may be used.

off the branches, when it drips under ^a the sickle. One, then, of these juices warmed in a pomegranate rind with rose oil is poured into the ears, or a local application is made of the boiled leaves beaten up with wax. For gout too it is most useful to foment the sinews with a decoction of the bark and leaves in wine. The blossom beaten up with the leaves removes scurf on the face. The leaves thoroughly pounded and taken in drink check over-lustful desire; too many doses produce absolute impotence. The seed of the black willow of Ameria with an equal weight of litharge, applied after the bath, acts as a depilatory.

XXXVIII. The agnus castus is not very different from the willow, either for its use in wickerwork or in the appearance of its leaves, but it has a more pleasant smell. The Greeks call it lygos, sometimes agnos, because the Athenian matrons, preserving their chastity at the Thesmophoria, strew their beds with its leaves. There are two kinds of it. The larger grows up to be a tree like the willow; the smaller is branchy, with paler, downy leaves. The first bears pale blossom with some purple in it, and is called the white agnus; the other, which bears only purple blossom, is called the dark agnus. They grow on marshy plains. The seed taken in drink has a taste somewhat like wine; it is said to reduce fevers, to stimulate perspiration when applied as embrocation with oil, and also to dispel lassitude. The trees ^b furnish medicines that promote urine and menstruation. They go to the head like wine—for the smell too is similar—drive flatulence into the lower bowels, check diarrhoea, and greatly benefit dropsy and splenic diseases. They ^b encourage abundant rich milk, and neutralize the poisons of serpents, especially

*The agnus
castus.*

PLINY : NATURAL HISTORY

- maxime quae frigus inferunt, minor efficacior ad serpentes, bibitur seminis drachma in vino vel posca aut duabus foliorum tenerrimorum. et inlinuntur utraque adversus araneorum morsus; vel perunctis tantum, suffitu quoque aut substratu fugant venenata.
- 62 ad venerem impetus inhibent, eoque maxime phalangiis adversantur, quorum morsus genitale excitat. capitis dolorem ex ebrietate sedant cum rosaceo flos tenerique cauliculi. seminis decoctum vehementiorem capitis dolorem dissolvit fotu, et vulvam etiam suffitu vel adpositu purgat, alvum cum puleio et melle potum. vomicas et panos difficile
- 63 concoquentes¹ cum farina hordeacea molliat. lichenas et lentigines cum aphronitro et aceto semen sanat, et oris ulcera et eruptionum² cum melle, testium cum butyro et foliis vitium, rhagadas sedis cum aqua illitum, luxata³ cum sale et nitro et cera. cum⁴ semine et folium⁵ additur in malagmata⁶ nervorum et podagras. semen instillatur in oleo decoctum capiti in lethargia et phrenesi. virgam qui in manu habeant aut in cinctu negantur intertriginem sentire.

¹ concoquentes *excepto* X *codd.*: concoquent tusi X: concoquens *Mayhoff*.

² eruptionum] eruptiones ulcerum *vel* eorum *coni. Mayhoff*.

³ luxata E, *Dellefsen*: luxatis *cum multis codd. Mayhoff*, qui *ita emendat*: cum sale et nitro et cera et semine <utilissimae> et folio. additur in malagmata <ad vitia> nervorum etc.

⁴ cum *ego*; et *codd. et edd.*

⁵ folium E: folio *ceteri codd.*

⁶ *Excidit hic aliquid*, ad dolorem *vel* ad vitium.

^a Forcellini *s.v. concoquo* supplies *collectum pus*. If the reading be correct this will be the right explanation, as *concoquo* seems never to be used intransitively. The MS. X has *facile*

those that bring on chill. The smaller kind makes the more effective remedies for the bite of serpents; one drachma of the seed, or two of the most tender leaves, is taken in wine, or in vinegar and water. Either kind makes a liniment for the bites of spiders; mere smearing drives away poisonous creatures, as does fumigation also, or placing some of the plant under the bed. They check violent sexual desire, and for this reason in particular they act as antidotes to the venomous spider, the bite of which excites the genitals. The blossom and tender shoots mixed with rose oil clear away headache due to intoxication. The seed takes away by fomentation with a decoction the more severe type of headache, purges the uterus also by fumigation or a pessary, and the bowels if drunk with pennyroyal and honey. Boils and superficial abscesses that refuse to come to a head ^a are softened by an application of it with barley meal. With saltpetre and vinegar the seed cures lichens and freckles, with honey sores of the mouth and of eruptions,^b those of the testes with butter and vine leaves, chaps in the seat when applied with water, dislocations when applied with salt, soda and wax. With the seed the leaves too are added to plasters <for the relief of painful> sinews and of gout. A decoction of the seed in oil is poured in drops on the head of sufferers from lethargus or phrenitis. It is said that those who keep a twig in their hand or in their girdle do not suffer from chafing between the thighs.

concoquent tusi, showing that some scribes felt the difficulty. With Mayhoff's conjecture translate: "With barley meal it softens, though it matures them with difficulty, boils, etc."

^b Mayhoff's conjecture would give: "sores in the mouth and eruptions of them." He compares XXII § 54 *ulcerum eruptiones*.

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- 64 XXXIX. Ericen Graeci vocant fruticem non multum a vitice¹ differentem, colore roris marini et paene folio. hoc adversari serpentibus tradunt.
- 65 XL. Genista quoque vinculi usum praestat, floris apibus gratissimi. dubito an haec sit quam Graeci auctores sparton appellavere, cum ex ea lina piscatoria apud eos factitari docuerim, et numquid hanc designaverit Homerus, cum dixit navium sparta dissoluta. nondum enim fuisse Hispanum Africanumve spartum in usu certum est, et cum fierent sutiles naves, lino tamen, non sparto umquam sutas. semen eius, quod Graeci eodem nomine appellant in folliculis passiolorum modo nascens purgat hellebori vice drachma et dimidia pota in aquae mulsae cyathis
- 66 quattuor ieiunis. rami simul et frondes² aceto macerati pluribus diebus et tunsii sucum dant ischiadicis utilem cyathi unius potu. quidam marina aqua macerare malunt et infundere clystere. perunguntur eodem suco ischiadici addito oleo. quidam et ad stranguriam utuntur semine. genista tunsa cum axungia genua dolentia sanat.

¹ a vitice § 67 collato *Mayhoff* : a myrice E, *Dellefsen*.

² simul et frondes ego ex *Mayhoffii* coniecturis : similiter frondei *Ianus*, *Dellefsen* : similiter fronde *codd*.

^a With the reading *myrice*, "tamarisk."

^b Book XIX. § 15.

^c See *Iliad* II. 135, σπάρτα λέλυνται. Pliny, as Varro in

XXXIX. The Greeks call erice (heath) a shrub *Erice.* differing only a little from the agnus castus; ^a it has the same colour and very nearly the same leaf as rosemary. Report says that it counteracts the poison of serpents.

XL. Genista also is used for cords, and has a flower *Greenweed.* of which bees are very fond. I wonder whether this is the plant that Greek writers have called sparton, because, as I have mentioned, ^b from it the Greeks are wont to make their fishing lines, and whether Homer had it in mind when he said that “the ships’ cords ^c (*sparta*) were loosed.” It is certain that the Spanish or African esparto grass was not yet in use, and though ships were made with sewed seams, yet it was with flax that they were sewed and never with esparto. The seed of this plant, which the Greeks call by the same name, grows in pods like those of the cowpea, and purges instead of hellebore if a drachma and a half with four cyathi of hydromel are drunk on an empty stomach. The branches, together with the leaves, soaked in vinegar for several days and then beaten up, yield a juice beneficial for sciatica in doses of one cyathus. Some prefer to soak them in sea-water and inject as an enema. ^d The same juice with the addition of oil is used as an embrocation for sciatica. Some too use the seed for strangury. Pounded genista with axlegrease cures painful knees.

Aulus Gellius XVII. 3, takes σπάρτα to be the cords with which the planks of a ship were bound together, and not the rigging.

^a See Dioscorides *Euporista* I. 231 (238): σπάρτον θαλάσση βρέξας ἐφ’ ἱκανὰς ἡμέρας εἶτα ἐγκόψας καὶ χυλίσας ἔνες. This shows that *pluribus diebus* means “for several days.” With the reading of Jan, “The leafy branches likewise.”

- 67 XLI. Myricen¹ ericam vocat Lenaeus similem scopis Amerinis; sanari dicit ea carcinomata in vino decocta tritaque cum melle inlita. eandem esse arbitrantur quidam tamaricen. sed ad lienem praecipua est,² si succus eius expressus in vino bibatur. adeoque mirabilem eius antipathian contra solum hoc viscerum faciunt, ut adfirment, si ex ea alveis
- 68 factis bibant sues sine liene inveniri. et ideo homini quoque splenico cibum potumque dant in vasis ex ea factis. gravis autem auctor in medicina virgam ex ea defractam, ut neque terram neque ferrum attingeret, sedare ventris dolores adseveravit inpositam ita ut tunica cinctuque corpori adprimeretur. vulgus infelicem arborem eam appellat, ut diximus, quoniam nihil ferat nec seratur unquam.
- 69 XLII. Corinthus et quae circa est Graecia bryan vocat eiusque duo genera facit, silvestrem plane sterilem, alteram mitiorem. haec fert in Aegypto Syriaque etiam abundanter lignosum fructum maiorem galla, asperum gustu, quo medici utuntur vice gallae in compositionibus quas antheras vocant. et lignum autem et flos et folia et cortex in eisdem
- 70 usus adhibentur, quamquam remissiora. datur sanguinem reicientibus cortex tritus et contra profluvia feminarum, coeliacis quoque. idem tunsus

¹ Myricen ericam *Mayhoff*: Myricen iam ericam *Ianus, Dellefsen*: muricen eam ericam *codd.*

² sed ad lienem praecipua est] ita *Dellefsen cum codd.*: et ad lienem praecipuam *Mayhoff*, qui post tamaricen punctum tollit.

^a See XVI. § 108. Perhaps, "never grows from seed."

^b For *coeliacus morbus* see Celsus IV. 19 § 1. W. G. Spencer in his last note on that passage says that Celsus appears to

XLI. *Lenaeus* calls the myrice (tamarisk) *erica* *Tamarisk*. (heath), comparing it to the brooms of *Ameria*. He says that boiled in wine, beaten up with honey, and applied to cancerous sores it heals them. Some authorities consider it to be the same as tamarice. But it is specific for splenic trouble if its juice is extracted and drunk in wine; so wonderful do they make out its antipathy to be to this internal organ, and to this only, that they affirm that if pigs drink out of troughs made of this wood they are found to be without a spleen. And for that reason they give to a man also, if he has an enlarged spleen, food and drink in vessels made of tamarisk. A respected medical authority, moreover, has asserted that a twig, broken off from it without its touching the ground or iron, relieves belly-ache, if it be so applied as to be pressed to the body by the tunic and the girdle. The common people, as I have said, call this tree unlucky, because it bears no fruit and never is planted.^a

XLII. *Corinth* and the part of *Greece* around it call *Brya*. *brya* a tree of which they distinguish two kinds: the wild, which is absolutely barren, and the cultivated. The latter in *Egypt* and *Syria* bears, and that abundantly, large-stoned fruit bigger than a gall-nut and bitter to the taste, which physicians use instead of gall-nuts in the medical mixtures which they call *antherae*. The wood also, and the blossom, leaves and bark, are used for the same purposes, although they are less potent. The pounded bark is given for the spitting of blood and for excessive menstruation, also to sufferers from coeliac disease.^b An application of

describe pyloric spasm and intestinal atony, referring also to *Areteus* II. 7 *περὶ κοιλιακῆς διαθέσεως*. See list of diseases.

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inpositusque collectiones omnes inhibet. foliis exprimitur sucus ad haec eadem. et in vino decoctuntur,¹ ipsa vero adiecto melle gangraenis inlinuntur. decoctum eorum in vino potum vel ipsa² imposita
71 cum rosaceo et cera³ sedant. sic et epinyctidas sanant, dentium dolori et aurium decoctum eorum salutare est, radix ad eadem similiter. folia hoc amplius ad ea quae serpunt inponuntur cum polenta. semen drachmae pondere adversus phalangia et araneos bibitur, cum altilium vero pingui furunculis inponitur. efficax et contra serpentium ictus praeter
72 quam aspidum. nec non morbo regio, phthiriasi, lendibus decoctum infusum prodest abundantiamque mulierum sistit. cinis arboris ad omnia eadem prodest. aiunt, si bovis castrati urinae immisceatur vel in potu vel in cibo, venerem finire. carbo ex eo genere urina ea restinctus in umbra conditur. idem cum libeat accendere † resolvitur †.⁴ Magi id et spadonis urina fieri tradiderunt.

¹ decoctuntur: decoquitur *coni.* Mayhoff puncto post eadem delete.

² ipsa add. Sillig: lacunam indicat Mayhoff Ianum secutus.

³ cera codd.: ceria Detlefsen. Fortasse ulcera pro et cera.

⁴ resolvitur codd.: restituitur Mayhoff: igni add. Io. Müller. Vossius *coni.* carbo extincta venere urina ea restinctus in umbra conditur, idem, si libeat accendere rursum, uritur.

^a *Sedant* here is apparently without a direct object. Detlefsen has *ceria*, for which follicular abscesses see Celsus V. 28 § 13. Mayhoff, recording this conjecture, adds *non conveniens sedandi verbo*. But Pliny has *tumorem* and *scabiem* as direct objects of *sedare*. Perhaps we should read *ulcera* for *et cera*.

^b Either "night rash from flea bites" or an eye disease. See list of diseases.

^c Two views have been taken of this sentence. One is that it gives the method of preparing the mixture to be used as an antaphrodisiac. This is the only meaning, I think, to be

the same bark pounded checks all kinds of gatherings. From the leaves is extracted a juice employed for the same purposes. The leaves are also decocted in wine; but by themselves with honey added they are applied to gangrenous sores. A decoction of them taken in wine or the leaves themselves applied locally with rose oil and wax are soothing.^a So used they also cure epinyctis; ^b a decoction of them is healing to tooth-ache and ear-ache; the root is similarly used for the same purposes. The leaves furthermore are applied with pearl barley to spreading ulcers. A drachma by weight of the seed is taken in drink for the poison of phalangia and other spiders; it is applied however with chicken fat to boils. It is an antidote also to the poison of serpents except that of the asp. It is also good for jaundice, phthiriasis and nits, if a decoction is used as a liniment, and this too checks excessive menstruation. The ash from the tree is good for all the same purposes. They say that if it is mixed with the urine of a castrated ox and taken in either drink or food it is antaphrodisiac. A burning coal of this wood is quenched with the urine mentioned and kept in the shade. This, when you want to light it, crumbles to powder.^c The Magi have recorded that the urine of a eunuch also has the same effect.

extracted from the reading of the MSS. Mayhoff's *restituitur* requires *venerem* as the understood direct object of *accendere*; in other words, the sentence gives, not a method of preparing the mixture, but one of counteracting it. The conjectures of Voss put this view far more clearly. "A burning coal, when desire is quenched, is put out by such urine and stored in a shady place; if the wish to kindle desire comes back, the same coal is burned." The rekindling of the coal rekindles sexual desire by imitative magic. This interpretation commends itself to students of folk-lore, but is based on bold and dubious conjecture.

73 XLIII. Nec virga sanguinea felicior habetur. cortex eius interior cicatrices quae praesanuere aperit.

XLIV. Sileris folia inlita fronti capitis dolores sedant. eiusdem semen contritum in oleo phthiriasis coerceat. serpentes et hunc fruticem fugiunt baculumque rustici ob id ex eo gerunt.

74 XLV. Ligustrum si eadem arbor est quae in oriente cypros, suos in Europa usus habet. sucus eius nervos, articulos, algores, folia ubique veteri ulceri, cum salis mica et oris exulcerationibus prosunt, acini contra phthiriasim, item contra intertrigines vel folia. sanant et gallinaceorum pituitas acini.

XLVI. Folia alni ex ferventi aqua remedio sunt tumoris.

75 XLVII. Hederae genera viginti demonstravimus. natura omnium in medicina anceps. mentem turbat et caput purgat largius pota, nervis intus nocet, iisdem nervis adhibita foris prodest. eadem natura, quae aceto est, omnia genera eius refrigerant. urinam cient potu, capitis dolorem sedant, praecipue cerebro continentique cerebrum membranae utiliter

^a *Inlinere* is nearly always used of liniments and ointments, which can be smeared on the parts affected. Here apparently it is used of leaves just placed on the forehead, the word used in such cases being generally *imponere* (see also § 76 below). Perhaps, however, the leaves are to be applied in some liquid or oily base.

^b *Phthiriasis* (plural) in the Latin is a transliteration of the Greek *φθειράσεις*.

^c Some verb seems to have fallen out here. Mayhoff conjectures *discutit*, which suits *algores* but not *nervos* or *articulos*. *Curat* would suit all three nouns; but, although *curare* ("to treat") is used several times in Celsus with the meaning "to treat successfully," it is apparently not so found in Pliny. Brakman would supply *sanat*. See *Mnemosyne* 1930.

XLIII. Nor is the red-twigg'd tree considered *Cornel.* more lucky. Its inner bark opens scars which have healed too soon.

XLIV. The leaves of siler applied^a to the fore- *Siler.* head relieve headache. The seed of it too crushed in oil checks phthiriasis.^b Serpents keep away from this shrub also, and for this reason rustics carry a walking stick made of it.

XLV. Privet, if it is the same tree as the eypros of *Privet.* the East, has its own uses in Europe. Its juice benefits^c sinews, joints and chills; its leaves everywhere are used to treat chronic ulcer and, with a sprinkling of salt, sores in the mouth; the berries are employed for phthiriasis, and the berries or the leaves for chafing between the thighs. The berries also cure the pip in chickens.

XLVI. The leaves of the alder in very hot water *The alder.* are a remedy for tumours.

XLVII. I have pointed out^d twenty kinds of ivy. *Ivy.* The medicinal properties of all are twofold in action. Ivy deranges the mind and also clears the head when taken too copiously in drink;^e taken internally it injures sinews, while an external application does them good. All kinds of ivy, being of the same character as vinegar, are of a cooling nature. They are diuretic when taken in drink; they relieve headache; especially beneficial to the brain and to the membrane

^d Book XVI. § 141 ff.

^e The word *anceps* in the preceding sentence, and the contrasted *nocet . . . prodest* in the second clause of this, indicate that there is also a contrast in the first clause. The translation given above suggests that a strong dose is mentally harmful but physically beneficial, but it must be admitted that in the Latin the contrast would be plainer if for *et* were to be read *at* or *sed* (Mayhoff often reads *set*). But the MSS. show no variants.

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mollibus inpositis foliis cum aceto et rosaceo tritis et
76 decoctis, addito postea rosaceo oleo. inlinuntur
autem fronti, et decocto eorum fovetur os caputque
perungitur. lieni et pota et inlita prosunt. decoc-
untur et contra horrores febrium eruptionesque
pituitae aut in vino teruntur. corymbi quoque poti
vel inliti lienem sanant, iocinera autem inliti. tra-
hunt et menses adpositi. sucus hederæ taedia
narium graveolentiamque emendat, præcipue albae
77 sativæ. idem infusus naribus caput purgat, effica-
cius addito nitro. infunditur etiam purulentis
auribus aut dolentibus cum oleo. cicatricibus quoque
decorem facit. ad lienes efficacior albae ferro cale-
factus. satis est acinos sex in vini cyathis duobus
sumi. acini ex eadem alba terni in aceto mulso poti
taenias pellunt, in qua curatione ventri quoque
inposuisse eos utile est. hedera quam chrysocarpon
appellavimus bacis aurei coloris viginti in vini sextario
tritis, ita ut terni cyathi potentur, aquam quæ cutem
subierit urina educit. Erasistratus eiusdem acinos
quinque tritos in rosaceo oleo calefactosque in cortice
punici instillavit dentium dolori a contraria aure.
78 acini qui croci sucum habent præsumpti potu a
crapula tutos præstant, item sanguinem excreantes

• See XVI. § 147.

enclosing it is an application of soft leaves pounded and boiled with vinegar and rose oil, more rose oil being added afterwards. They are also applied to the forehead, and a decoction of them is used to foment the mouth and to rub the head. They are good for the spleen whether taken in drink or used as liniment. They are also boiled or beaten up in wine for the shivers of ague and for outbursts of phlegm. Clusters also of ivy berries cure splenic trouble, either taken in drink or applied locally; for liver trouble, however, they must be applied. Pessaries of berries promote menstruation. Ivy juice, especially that of the white cultivated ivy, cures complaints and offensive smell of the nostrils. The same poured into the nostrils clears the head, more thoroughly if soda is added. It is also poured with oil into purulent or painful ears. It furthermore removes the ugly marks of scars. For troubles of the spleen the juice of the white kind warmed with hot iron is more efficacious. A sufficient dose is six berries taken in two cyathi of wine. Berries of white ivy taken three at a time in oxymel expel tapeworms, and in this treatment it is also beneficial to apply the berries to the belly. The ivy that I have called golden-berried ^a draws off in the urine the subcutaneous water of dropsy, if twenty of the golden berries are beaten up in a sextarius of wine and the mixture is drunk in doses of three cyathi. Erasistratus prescribed five berries of the same ivy, pounded in rose oil and warmed in the rind of a pomegranate, for tooth-ache, the injection to be made drop by drop into the ear opposite to the pain. If the berries that have a saffron juice are taken in drink beforehand, they keep off the headache that follows drinking; they are likewise good for the spitting of blood and for

- aut torminibus laborantes. hederæ nigrae candi-
diores corymbi poti steriles etiam viros faciunt.
inlinitur decocta quaecumque in vino omni¹
79 ulcerum generi, etiamsi cacothæ sint. lacrima
hederæ psilotrum est phthiriasimque tollit. flos
cuiuscumque generis trium digitorum captu dysinte-
ricos et alvum citam emendat in vino austero bis die
potus. et ambustis inlinitur utiliter cum cera.
denigrant capillum corymbi. radicis sucus in aceto
potus contra phalangia prodest. huius quoque ligni
80 vaso splenicos bibentes sanari invenio. et acinos
terunt moxque comburunt et ita inlinunt ambusta
prius perfusa aqua calida. sunt et qui incidant suci
gratia eoque utantur ad dentes erosos, frangique
tradunt, proximis cera munitis ne laedantur. gummi
etiam in hedera quaerunt, quam ex aceto utilissimam
dentibus promittunt.
- 81 XLVIII. Graeci vicino vocabulo cisthon appellant
fruticem maiorem thymo, foliis ocimi. duo eius
genera : flos masculo rosaceus, feminae albus. ambo
prosunt dysintericis et solutionibus ventris in vino
austero ternis digitis flore capto et similiter bis die
poto, ulceribus veteribus et ambustis cum cera et per
se oris ulceribus. sub his maxime nascitur hypo-
cisthis, quam inter herbas dicemus.

¹ omni *Mayhoff* (Appendix): omnium *codd.*

^a See XXVI. § 49.

colic. The whiter clusters of the dark ivy taken in drink make even men sterile. A decoction in wine of any kind of ivy is applied locally to every kind of ulcer, even if it is malignant. The tears of the ivy act as a depilatory and remove phthiriasis. The blossom of any sort of ivy, taken in dry wine twice a day, a three-finger pinch at a time, corrects dysentery and looseness of the bowels. With wax it is useful as an ointment for burns. The clusters turn the hair black. The juice of the root, taken in vinegar, is good for the bite of poisonous spiders. I find also that patients with diseases of the spleen are cured if they drink from a vessel made of this wood. They crush too the berries, then burn them, and in this way apply them to burns that have previously been bathed with warm water. There are also some who make incisions in ivy for the sake of the juice, which they use for decayed teeth; they say that the teeth break off, those nearest being protected by wax lest they should be injured. They obtain also a gum from ivy, which in vinegar is recommended as very useful for the teeth.

XLVIII. The Greeks give the name *cisthos*, which *Cisthos.* is very like *cissos* (ivy), to a shrub larger than thyme and with leaves like those of *ocimum*. There are two kinds of it; the flower of the male is rose-coloured, of the female, white. Both are good for dysentery and looseness of the bowels, the dose being as much of the blossom as can be taken in three fingers, this quantity to be swallowed in a dry wine twice a day; for chronic ulcers and for burns the blossom is applied with wax, and by itself for ulcers in the mouth. It is especially under these shrubs that there grows the *hypocisthis*, which I shall describe ^a when I treat of herbs.

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- 82 XLIX. Cissos erythranos ab iisdem appellatur similis hederæ, coxendicibus utilis e vino potus, item lumbis, tanta vi acini ut sanguinem urina detrahat. item chamaecisson appellant hederam non attolentem se a terra. et hæc contunsa in vino acetabuli mensura lienî medetur, folia ambustis cum axungia. milax quoque, quæ¹ anthophoros cognominatur, similitudinem hederæ habet, tenuioribus foliis. coronam ex ea² factam in pari foliorum numero aiunt
- 83 capitis doloribus mederi. quidam duo genera milacis dixere: alterum³ immortalitati proximum³ in convallibus opacis, scandentem arbores,⁴ comantibus acinorum corymbis, contra venenata omnia efficacissimum in tantum ut acinorum suco infantibus sæpe instillato nulla sint⁵ postea venena nocitura. alterum genus culta amare et in his gigni, nullius effectus. illam esse milacem priorem cuius lignum ad aures
- 84 sonare diximus. similem huic aliqui clematida appellaverunt, repentem per arbores, geniculatam et ipsam. folia eius lepras purgant; semen alvum solvit acetabuli mensura in aquæ hemina aut aqua mulsa. datur ex eadem causa et decoctum eius.

¹ quæ *Mayhoff*: qui aut quia aut qui et *codd.*

² ea *Mayhoff*: eo *codd.*

³ alterum proximum] alteram proximam *Mayhoff.*

⁴ arbores *Hermolaus Barbarus*: arborum *codd.*: arborem *coni. Mayhoff.* Inter arborum et comantibus lacunam statuit *Urlichs*, quem sequitur *Dellefsen.*

⁵ efficacissimum in tantum ut nulla sint *etc. ego conicio*: efficacissimi sine ut et sint cum *codd.*, *Dellefsen*: ut et (post nocitura) sint *vulg.*: efficacissime iuvantem *Mayhoff*, qui post suco dist. et quippe pro sæpe *coni.*

XLIX. The plant called *cissos erythranos* by the ^{Plants like} Greeks is like ivy. Taken in wine it is good for sciatica and lumbago; so strong is the property of the berry that it brings away blood in the urine. *Chamaecissos* again is the name they give to an ivy that never rises from the ground. This too crushed in wine and taken in doses of an acetabulum cures splenic trouble; the leaves with axle-grease are applied to burns. The *milax* also, which has the further name of *anthophoros* (flower-bearer), has a likeness to the ivy, though the leaves are more slender. A chaplet of it made with an odd number of leaves is said to be a cure for headache. Some authorities have declared that there are two kinds of *milax*. One is very nearly everlasting, grows in shaded valleys, is a climber of trees, bears berries in luxuriant clusters, and is most efficacious against all poisonous things to such a degree that, if the juice of the berries is repeatedly administered ^a in drops to babies, no poison will hereafter do them any harm. The other kind is said to be fond of cultivated ground and to grow there, having no medicinal value. The former *milax* they state to be the one the wood of which, we said, ^b gives out a sound when placed close to the ear. Like it is the plant that some have called *clematis*,^c which climbs along trees and is itself jointed. Its leaves cleanse leprous sores; its seed loosens the bowels if an acetabulum of it is taken in a hemina of water or in hydromel. A decoction of it is administered for the same purpose.

^a *Instillato* is difficult. The verb is often used of dropping into the ears, and that may be the meaning here, but *auribus* would be expected. Perhaps Pliny wrote *infantium auribus*, which might easily be "telescoped" into *infantibus*.

^b See XVI. § 155.

^c See *Index of Plants*.

- 85 L. Harundinis genera xxviii demonstravimus, non aliter evidentiore illa naturae vi quam continuis his voluminibus tractamus, siquidem harundinis radix contrita inposita filicis stirpem corpore extrahit, item harundinem filicis radix. et quo plura genera faciamus,¹ illa quae in Iudaea² Syriaque nascitur odorum unguentorumque causa. urinam movet cum gramine aut apii semine decocta, ciet et menstrua
- 86 admota. medetur convulsis duobus obolis pota, iocineri, renibus, hydropi, tussi etiam suffitu magisque cum resina, furfuribus ulcerumque manantibus cum murra decocta. excipitur et succus eius fitque elaterio similis. efficacissima in omni harundine quae proxima radici,³ efficaciora genicula. harundo Cypria, quae donax vocatur, corticis cinere alopecias emendat, item putrescentia ulcera. foliis eius ad extrahendos aculeos utuntur, efficacibus et contra ignes sacros collectionesque omnes. vulgaris harundo extractoriam vim habet⁴ recens tusa, non in radice tantum, multi⁵ enim et ipsam harundinem tradunt. medetur et luxatis et spinae doloribus radix in aceto inlita, eadem recens trita et in vino pota venerem concitat. harundinum lanugo inlata auribus obtundit auditum.

¹ faciamus *Dellefsen* : facimus aut fecimus *codd.*

² Iudaea *Mayhoff, Dellefsen, cum codd.* : India *Hermolaus Barbarus.*

³ radici aut radice *codd.* : a radice *Dellefsen.*

⁴ *Hic in codd. et scriptum est.*

⁵ multi *Dellefsen* : in mulso *Mayhoff, qui Cels. V. 26, 35 confert* : multū *codd.*

L. I have pointed out ^a twenty-eight kinds of reed, *Reeds.* and nowhere is more obvious that force of Nature which I describe in these books one after another, if indeed the root of the reed, crushed and applied, draws a fern stem out of the flesh, while the root of the fern does the same to a splinter of reed. To increase the number of the various reeds there is that which grows in Judaea and Syria and is used for scents and unguents; boiled down with grass or celery seed this is diuretic, and when made into a pessary acts as an emmenagogue. A cure for sprains, for troubles of the liver and of the kidneys, and for dropsy, is two oboli taken in drink; for a cough also inhalation is used, the addition of resin being an improvement; for scurf and running sores is used a decoction with myrrh. Its juice also is collected and made into a drug like elaterium. Of all reeds the parts nearest the root are the most efficacious, and the joints are more efficacious ^b than other parts. The Cyprian reed, called donax, has a bark which, reduced to ash, is a remedy for mange and also for festering sores. Its leaves are used for extracting splinters, and are also good for erysipelas and for all gatherings. The common reed has the power to extract if freshly pounded, and not the root only, for many hold that the reed itself too has this property. The root applied in vinegar cures dislocations and pains of the spine; the same ground fresh and taken in wine is aphrodisiac. The down on reeds placed in the ears deadens the hearing.

^a See XVI. § 156 ff.

^b Another possible rendering is "the parts nearest the root are very efficacious and the joints are more efficacious still."

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- 88 LI. Cognata in Aegypto res est harundini papyrus,¹ praecipuae utilitatis, cum inaruit, ad laxandas siccandasque fistulas et intumescendo ad introitum medicamentorum aperiendas. charta quae fit ex eo cremata inter caustica est. cinis eius ex vino potus somnum facit, ipsa ex aqua inposita callum sanat.
- 89 LII. Ne in Aegypto quidem nascitur hebenus, ut docuimus, nec tractamus in medicina alienos orbes, non omittetur tamen propter miraculum. scobem eius oculis unice mederi dicunt, lignoque ad cotem trito cum passo caliginem discuti, ex aqua vero radice albugines oculorum, item tussim pari modo dracunculi radicis adiecto cum melle. hebenum medici et inter erodentia adsumunt.
- 90 LIII. Rhododendros ne nomen quidem apud nos invenit Latinum, rhododaphnen vocant aut nerium. mirum folia eius quadripedum venenum esse, homini vero contra serpentes praesidium ruta addita e vino pota. pecus etiam et caprae, si aquam biberint in qua folia ea maduerint, mori dicuntur.
- 91 LIV. Nec rhus Latinum nomen habet, cum in usum pluribus modis veniat. nam et herba est silvestris, foliis myrti, cauliculis brevibus, quae taenias

¹ *Nonnulli papyrus malint.*

^a Both Littré and the Bohn translators understand *herba* with *ipsa*, translating as in the text. But the sudden change of gender from neuter to feminine is startling, and perhaps with *ipsa* is to be understood *charta*.

^b See XII. § 17.

^c These are all Greek words: *ῥοδόδενδρος* or *ῥοδόδενδρον* (rose tree), *ῥοδοδάφνη* (rose bay) and *νήριον*. The shrub is

LI. Akin to the reed is a plant growing in Egypt, *Papyrus*. the papyrus, which, when it has been dried, is especially useful for expanding and drying fistulas, and, by swelling, for opening them to admit medicaments. The paper made from it is, when burnt, one of the caustic remedies. Its ash taken in wine induces sleep. The plant^a itself applied with water cures callosities.

LII. Not even in Egypt does the ebony-tree grow, *Ebony*. as I have stated,^b and in my medical research I omit foreign regions; yet I must not pass it by, as it is a great marvel. Its sawdust is said to be a sovereign remedy for the eyes; its wood, ground on the whetstone and mixed with raisin wine, to dispel dimness of vision; its root, applied however in water, to disperse white specks on the eyes; cough too to be cleared away if an equal measure of dracunculus root is added along with honey. Physicians include ebony among erosive remedies.

LIII. The rhododendros^c has not even found a *Oleander*. Latin name among the Romans, names for it being rhododaphne^c or nerium.^c It is a strange fact that, while its leaves are poisonous to quadrupeds, to man on the other hand, if rue is added and the mixture taken in wine, they are a protection against the poison of snakes. Sheep too and goats, if they drink water in which these leaves have been steeped, are said to be killed by it.

LIV. Neither has rhus received a Latin name, *Rhus*. although many uses are made of it. For it is both a wild plant with myrtle-like leaves and short stems, which expels tapeworms, and also the shrub called described by Dioscorides (IV. 81, Wellmann). See *Index of Plants*.

- pellit, et frutex coriarius appellatur, subrutilus, cubitalis, crassitudine digitali, cuius aridis foliis ut
92 malicorio coria perficiuntur. medici autem rhoicis utuntur ad contusa, item coeliacos et sedis ulcera aut quae phagedaenas vocant. trita cum melle et inlita cum aceto * * * decoctum eorum instillatur auribus purulentis. fit et stomatice decoctis ramis ad eadem quae ex moris, sed efficacior admixto alumine. inlinitur eadem hydropicorum tumori.
- 93 LV. Rhus qui erythros appellatur semen est huius fruticis. vim habet adstringendi refrigerandique. adspergitur pro sale obsoniis alvo soluta, omnesque carnes cum silphio suaviores facit. medetur ulceribus manantibus cum melle, asperitati linguae, percussis lividis, desquamatis; eodem modo capitis vulnera ad cicatricem celerrime perducit, feminarum abundantiam sistit cibo.
- 94 LVI. Alia res erythrodanum, quam aliqui ereuthodanum vocant, nos rubiam, qua tinguntur lanæ pellesque perficiuntur. in medicina urinam ciet, morbum regium sanat ex aqua mulsa, et lichenas ex aceto inlita, ischiadicos, paralyticos ita ut bibentes laventur cotidie. radix semenque trahunt menses, alvum sistunt et collectiones discutunt. contra

^a Dioscorides (I. 108, Wellmann) has *περυγία τε καὶ φαγεδαίνας ἐπέχει καταπλασσόμενα τὰ φύλλα μετ' ὄξους ἢ μέλιτος*. This suggests *pterygia sistunt* or *sanant* as part of the lost words.

^b The corresponding sentence in Dioscorides (I. 108, Wellmann) is interesting. *καὶ ὁ καρπὸς δὲ τὰ αὐτὰ ποιεῖ, ἀρμόζων ἐν προσοψήμασι κοιλιακοῖς καὶ δυσεντερικοῖς, ἀφλέγμαντά τε τηρεῖ σὺν μέλιτι καταπλασθεὶς θλάσματα, ἀποσύρματα, πελιώματα, γλώττης τε τραχύτητας σμήχει σὺν μέλιτι καὶ λευκὸν ρόυν ἰσθησιν*.

“ the tanner’s ”, of a reddish colour, a cubit high, and of the thickness of a finger, the leaves of which when dried are used as is pomegranate rind in the tanning of leather. Physicians moreover use the leaves of rhus for bruises, likewise for coeliac trouble, sores in the seat and for what they call eating (phagedaenic) ulcers. Pounded with honey and applied with vinegar . . .^a a decoction of them is dropped into suppurating ears. A decoction of the branches makes a mouth-wash, which is used for the same purposes as that made from mulberries, but it is more efficacious when mixed with alum. This is also applied to dropsical swellings.

LIV. What is called rhus erythros (red sumach) is the seed of this shrub. It has astringent and cooling properties. It is sprinkled on viands instead of salt when the bowels have been relaxed, and with silphium added makes all meat sweeter. With honey it cures running sores, roughness of the tongue, and livid or excoriated bruises; applied in the same way it very quickly causes wounds on the head to cicatrize.^b Taken as food it checks excessive menstruation. *Rhus erythros.*

LVI. A different plant is erythrodanum, called by some ereuthodanum, and rubia by the Romans, which is used to dye wool and to tan leather. As a medicine it is diuretic, and taken in hydromel cures jaundice (lichen too if applied with vinegar), sciatica and paralysis if the patient bathes daily while taking the draught.^c The root and the seed are emmenagogues, check diarrhoea and disperse gatherings. The *Erythrodanum.*

^c The qualifying clause may be taken with *paralyticos* only or with it and *ischiadicos*. From *et inlita* is a parenthesis, and is marked as such by Mayhoff.

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serpentes rami cum foliis inponuntur. folia et capillum inficiunt. invenio apud quosdam morbum regium sanari hoc frutice etiam si alligatus spectetur tantum.

- 96 LVII. Distat ab eo qui alysson vocatur foliis tantum et ramis minoribus; nomen accepit quod a cane morsos rabiem sentire non patitur ex aceto potus adalligatusque; mirum est quod additur, saniem conspecto omnino frutice eo siccari.
- 96 LVIII. Tinguentibus et radícula lanas praeparat quam struthion a Graecis vocari diximus. medetur morbo regio et ipsa pota¹ et decoctum eius, item pectoris vitiis; urinam ciet, alvum solvit, vulvas purgat, quamobrem aureum potorium medici vocant. ea et ex melle prodest¹ magnifice ad tussim, orthopnoeae colearis mensura, cum polenta vero et
- 97 aceto lepras tollit. eadem cum panace et capparis radice calculos frangit pellitque, panos discutit cum farina hordeacia et vino decocta. miscetur et malagmatis et collyriis claritatis causa, sternutamento

¹ pota et decoctum eius, item pectoris vitiis; urinam ciet, alvum solvit, vulvas purgat, quamobrem aureum potorium medici vocant. ea et ex melle prodest *ego*: et decoctum eius potu, item pectoris vitiis. urinam ciet, alvum solvit. et vulvas purgat, quam ob rem aureum *πείσσον* medici vocant ex ea. e melle prodest *Mayhoff*: decocto eius potu, item pectoris vitiis. urinam ciet, alvum solvit et vulvas purgat, quamobrem aureum poterion medici vocant. ea et ex melle prodest *Dellefsen*: ipsa *aut* ipsam *sine* et *ante* decoctum; decocta; potu *aut* potu *aut* pota; pecion *aut* pectori *aut* petition; ex ea et *codd.* Cf. XXXIII. § 136 mille convivis totidem aureis potoriis.

^a *Sanies* is said by Celsus (V. 26, 20) to be thinner than blood, varying both in thickness and colour, while *pūs* is the thickest and whitest of the three, more sticky than either *sanies* or blood. Pliny is thinking of the discharge from a dog-bite.

branches with the leaves are applied for snake-bites. The leaves also dye the hair. I find in some authorities that jaundice is cured if this shrub is merely looked at while worn as an amulet.

LVII. The plant called alysson differs from the last *Alysson*. only in having smaller leaves and branches. It has received its name because it prevents persons bitten by a dog from going mad if they take it in vinegar and wear it as an amulet. The authorities add the wonderful marvel that the mere sight of this shrub dries up sanies.^a

LVIII. *Radicula* too prepares wools for the dyers; *Radicula*. I have said^b that it is called struthion by the Greeks. It cures jaundice both when taken by itself in drink and in the form of a decoction, and likewise chest troubles; it promotes urine, loosens the bowels and purges the uterus, for which reason physicians call it "golden goblet".^c With honey too it is a splendid remedy for a cough, and in doses of a spoonful for orthopnoea; but with pearl barley and vinegar it removes leprous sores. Again, with panaces^d and caper root it breaks up and expels stone in the bladder, and a decoction with barley meal and wine disperses superficial abscesses. It is used as an ingredient of poultices, and of eye-salves to improve

^b See XIX. § 48.

^c The text has suffered in this sentence through probably the sleepiness of a scribe. I have tried to restore the sense and the grammar while retaining as many words of the MSS. as possible. I suggest *potorium* because of XXXIII. § 136; otherwise *poterion* (Sillig and Detlefsen) or *poculum* (the vulgate reading) would suit the passage. The objection to Mayhoff's ingenious *πεσσόν* is that it would apply only to *vulvas purgat*.

^d See *Index of Plants*.

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utilis inter pauca, lienī quoque ac iocineri. eadem pota denarii unius pondere ex aqua mulsa suspiriosos sanat, sic et pleuriticos et omnes lateris dolores.

98 Apocyni semen ex aqua—frutex est folio hederæ, molliore tamen, et minus longis viticulis, semine acuto, diviso, lanuginoso, gravi odore—canes et omnes quadripedes necat in cibo datum.

99 LIX. Dictum¹ rosmarinum est. duo genera eius: alterum sterile, alterum cui et caulis et semen resinaceum, quod cachrys vocatur. foliis odor turis. radix vulnera sanat viridis inposita et sedis procidentia, condylomata, hæmorrhoidas, sucus et fruticis et radicis morbum regium et ea quæ repurganda
100 sunt. oculorum aciem exacuit. semen ad vetera pectoris vitia datur potui et ad vulvas cum vino et pipere, menses adiuvat, podagris inlinitur cum aerina farina, purgat etiam lentigines et quæ excalfacienda sint. aut cum sudor quaerendus, inlitum, item convulsis. auget et lacte in vino potum, item radix. ipsa herba strumis cum aceto inlinitur, ad tussim cum melle prodest.

101 LX. Cachrys multa genera habet, ut diximus. sed hæc quæ ex rore supra dicto nascitur, si fricetur, resinosa est. adversatur venenis et venenatis præterquam anguib. sudores movet, tormina discutit, lactis ubertatem facit.

¹ dictum *add. Urlichs* : *post rosmarinum trans. Mayhoff.*

^a See XIX. § 187.

^b See Celsus VI. 18, 8.

^c See XVI. § 30, where the cachrys is said to be the *pilula* of the oak, fir, larch, pitch pine, linden, nut (chestnut?) and plane. Pliny also uses the word for the capsule of rosemary. Theophrastus IX. xi. 10 calls κάχρυ (neuter) the fruit of the *libanotis*.

the vision; it is especially useful for making the patient sneeze, and also for troubles of the spleen and liver. The same plant taken in hydromel in doses of one denarius by weight cures asthma and pleurisy and all pains in the side.

Dog's-bane is a shrub having a leaf like that of ivy *Dog's-bane* but softer; the tendrils are shorter, and the seed is pointed, grooved, downy, and strong smelling. If given in their food this seed in water kills dogs and all other quadrupeds.

LIX. Rosemary has been mentioned already.^a *Rosemary.* There are two kinds of it; one is barren, and the other has a stalk and a resinous seed called cachrys. The leaves have the smell of frankincense. A local application of the fresh root heals wounds, prolapsus of the anus, condylomata,^b and haemorrhoids. The juice both of the shrub and of the root cures jaundice and such conditions as call for cleansing. It sharpens the eyesight. The seed is given in drink for chronic complaints of the chest and with wine and pepper for uterine trouble; it is an emmenagogue, and with darnel meal is applied locally for gout; an application also clears away freckles, and is used when a calorific or sudorific is called for, also for sprains; milk is increased when it, and when the root, is taken in wine. The herb itself is applied with vinegar to scrofulous sores, and with honey is good for a cough.

LX. There are, as I have said, many kinds of *Cachrys.* cachrys.^c But the one growing on rosemary, the plant just described, is resinous if rubbed. It neutralizes poisons, and the venom of all creatures except snakes. It promotes perspiration, dispels colic, and produces a rich supply of milk.

- 102 LXI. Herba Sabina brathy appellata a Graecis duorum generum est, altera tamarici folio similis, altera cupressi. quare quidam Creticam cupressum dixerunt. a multis in suffitus pro ture adsumitur, in medicamentis vero duplicato pondere eosdem effectus habere quos cinnamum traditur. collectiones minuit et nomas conpescit, inlita ulcera purgat, partus emortuos adposita extrahit et suffita. inlinitur igni sacro et carbunculis cum melle¹; ex vino pota regio morbo medetur. gallinacii generis pituitas fumo eius herbae sanari tradunt.
- 103 LXII. Similis herbae huic Sabinae est selago appellata. legitur sine ferro dextra manu per tunicam qua² sinistra exuitur³ velut a furante, candida veste vestito pureque lautis nudis pedibus, sacro facto prius quam legatur pane vinoque. fertur in mappa nova. hanc contra perniciem omnem habendam prodidere Druidae Gallorum et contra omnia oculorum vitia fumum eius prodesse.
- 104 LXIII. Idem samolum herbam nominavere nascentem in umidis, et hanc sinistra manu legi a ieiunis

¹ *Ita dist. Val. Rose et Mayhoff* : ex *codd.* : carbunculis, cum melle et vino *vulg.*, *Dellefsen*.

² qua *plerique codd.*, *Dellefsen* : operta *Mayhoff* : fortasse queta.

³ exuitur *codd.*, *Dellefsen* : eruitur *vulg.*, *Mayhoff* : exeritur *C. F. W. Müller*, fortasse recte.

^a I do not think that there is any need to depart from the MSS., except, perhaps, to alter *exuitur* to *exeritur* with *C. F. W. Müller*. The reason for the proposed changes is to make *sinistra* ablative, some old editions and the MS. X actually adding *manu*. It is true that the left hand is usually the one used in this kind of magic (XXI. § 176, XXVII. §§ 36, 117), but

LXI. Sabine herb, called brathy by the Greeks, is of *Savin*. two kinds. One has a leaf like that of the tamarisk, the other like that of the cypress, for which reason some have called it the Cretan cypress. Many use it instead of frankincense for fumigations; in medicines moreover a double dose is said to be equivalent in strength to a single dose of cinnamon. It reduces gatherings and cheeks corroding sores; an application cleanses ulcers, and used as a pessary or for fumigation it brings away the dead foetus. With honey it is used as an ointment for erysipelas and carbuncles; taken in wine it cures jaundice. By fumigation sabine herb is said to cure the pip in chickens.

LXII. Like this sabine herb is the plant called selago *Selago*. It is gathered without iron with the right hand, thrust under the tunic through the left arm-hole, as though the gatherer were thieving.^a He should be clad in white, and have bare feet washed clean; before gathering he should make a sacrificial offering of bread and wine. The plant is carried in a new napkin. The Druids of Gaul have recorded that it should be kept on the person to ward off all fatalities, and that the smoke of it is good for all diseases of the eyes.

LXIII. The same authorities have called samolus *Samolus*. (brook-weed) a plant growing in moist regions,^b which (they say) is to be gathered with the left hand here the right hand pretends to be the left and deceives the plant, taking it by surprise before its virtue can slip away. Such deception of *e.g.* rice is still common in the East. Mayhoff's text gives: "the right hand being covered by the tunic, it is torn off by the left hand etc."

^b I think that *et* before *hanc* is "and" not "also." The latter meaning would make necessary a radical reconstruction of § 103. But there seem to be contrasts between the two cases, *dextra* (*sinistra* and *sacro facto pane vinoque*) (*a iciunis*). One is tempted to suggest *at* for *et*.

contra morbos suum boumque, nec respicere legentem, neque alibi quam in canali deponere, ibi conterere poturis.

- 105 LXIV. Cummium genera diximus. in his maiores effectus melioris cuiusque erunt. dentibus inutiles sunt, sanguinem coagulant et ideo reicientibus sanguinem prosunt, item ambustis, arteriae vitiis inutiles, urinam cient, amaritudines hebetant.¹ adstrictis ceteris, quae ex amygdala amara est spissandisque visceribus efficacior, habet excalfactorias vires. postponuntur² prunorum autem et cerasorum ac vitium. siccant inilitae et adstringunt, ex aceto vero infantium lichenes sanant, prosunt et tussi veteri quattuor obolis in musto³ potis. creduntur et colorem gratiorem facere ciborumque adpeten-

¹ *Sic dist. Mayhoff.* hebetant, adstrictis ceteris, quae ex amygdala amara est, spissandique (*sic multi codd.*) viribus efficacior *vulg.*: adstrictis ceteris visceribus, quae ex amygdala amara est, spissandique efficacior *Dellefsen (Ulrichs secutus)*: hebetant. adstrictoriis ceteris, quae ex amygdala amara est spissandisque visceribus efficacior *Mayhoff.*

² postponuntur *Dellefsen coll. XIII.* § 66: deterior ex amygdalis amaris et ceraso, pessima e prunis: proponuntur *codd., Mayhoff.*

³ musto *Sillig, Ianus, vet. Dal.*: mixto *codd., Mayhoff.*

^a Book XIII. §§ 66 ff.

^b If with Mayhoff we put a full stop at *hebetant* and a comma at *ceteris* we can make sense of this passage without emendation. As is pointed out in Forcellini, *adstrictus* sometimes means "*astringens, acerbus, στυφνός.*" Cf. XXVII § 121, *gustu adstricto*. If the full stop is put at *ceteris*, some word meaning "properties", e.g. *viribus*, must be understood with it: "gums deaden bitterness, and their properties generally are astringent." The other punctuation seems better. Possibly there is a lacuna after *amara*. Dioscorides I 123, τὸ δὲ κόμμι αὐτῆς (*sc. ἀμυγδάλης πικρᾶς*) στυφεὶ καὶ

by fasting persons to keep off the diseases of swine and oxen. As one gathers it one must not look at it, nor place the plant anywhere except in the trough, where it should be crushed for the animals to drink.

LXIV. I have mentioned ^a the different kinds of *Gums*. The better the sort of each kind the more potent its effect. Gums are injurious to the teeth, coagulate blood and therefore benefit those who spit blood; they are also good for burns though bad for affections of the trachea; they promote urine and lessen the bitter taste in things. Gums generally are acrid,^b but the gum that comes from bitter almonds, and is more efficacious for giving astringency to the internal organs, possesses heating properties. The gums from plums, cherries and vines are less esteemed. An application of gum has drying and astringent properties, in vinegar moreover it cures lichens on babies, and four oboli taken in must ^c are good for a chronic cough. Gums are believed to improve the complexion and also the appetite; they

θερμαίνει, shows that the bitter almond is referred to, but the run of the sentence makes us expect a nominative adjective to be joined to *efficacior*. Perhaps—it is only a guess—the sentence should run: *adstrictis ceteris, quae ex amygdala amara <excipitur amara> est spissandisque visceribus efficacior; habet exalfactorias vires*. The logic of the passage would be that other gums lessen bitter tastes, but gum from bitter almonds is itself bitter.

^c It is difficult to make sense here of *in mixto*, “in a mixture.” Moreover, *in* is not the usual preposition in such phrases, but *ex* or *cum*. This objection, of course, applies to *musto* as much as to *mixto*. *Musto*, however, is probably right, although *immixtarum*, “four oboli of mixed gums” would suit the sense of the passage and avoid the difficulty of *in*. But were *immixtarū* the original reading, it is hard to understand why it was altered to *in mixto*.

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tiam, et calculosis prodesse cum passo potae. oculorum et vulnerum utilitatibus maxime conveniunt.

107 LXV. Spina Arabica—spinae Aegyptiae¹ laudes in odorum loco diximus—et ipsa stringit spissatque destillationes omnes et sanguinis excreationes mensumque abundantiam, etiamnum radice valentior.

108 LXVI. Spinae albae semen contra scorpiones auxiliatur. corona ex ea inposita capitis dolores minuit. est huic similis quam Graeci acanthion vocant, minoribus multo foliis, aculeatis per extremitates et araneosa lanugine obductis, qua collecta etiam vestes quaedam bombycinis similes fiunt in oriente. ipsa folia vel radices ad remedia opisthotoni bibuntur.

109 LXVII. Et acacia e² spina fit in Aegypto alba nigraque arbore, item viridi,³ sed longe meliore⁴ prioribus. fit et in Galatia deterrima spinosiore arbore. semen

¹ Spina Arabica—spinae Aegyptiae *Mayhoff*: spinae Arabicae *Urlichs, Detlefsen*: spina (-ae) aegyptia(-ae) spinae arabicae *codd.*

² acacia e *Hard., Mayhoff*: acaciae *plerique codd., Detlefsen.*

³ viridi *EX vulg., Mayhoff*: viridis *reliqui codd., Detlefsen.*

⁴ meliore *Urlichs, Mayhoff*: melior ē *aliquot codd., Sillig*: melior *Detlefsen.*

^a Book XIII. § 63, where, however, Pliny makes no mention of the Arabian thorn. The text in § 107 is obviously corrupt in the MSS.; Mayhoff (Appendix p. 484) calls it a *locus desperatus*. Either Pliny spoke of both thorns or he mentioned only the Arabian, forgetting what he had said in XIII. 63. A scribe was likely enough, if Pliny made this mistake, to add a mention of the Egyptian thorn; but if Pliny had spoken only of the Egyptian a scribe would not be likely to add the Arabian. So we can either try to harmonize what is said of the two thorns, with Mayhoff, or omit all reference to the Egyptian thorn, with Urlichs and Detlefsen. That Pliny is thinking of the *spina Arabica* is shown by Dioscorides III. 13: *σύνφουσα, καὶ πρὸς*

are good for stone when taken with raisin wine. They are especially useful for the eyes and for wounds.

LXV. The Arabian thorn—I have mentioned^a the merits of the Egyptian thorn in my section on scents—even by itself by its thickening nature checks all fluxes, spitting of blood and excessive menstruation, and there is even more potency in its root. Arabian thorn.

LXVI. The seed of the white thorn is a help against the stings of scorpions, and a crown of it when worn lessens headache. Like it is the plant called acanthion by the Greeks, but this has much smaller leaves, which have prickly points and are covered with down like cobweb. In the East this is even gathered to make a silk-like cloth.^b The leaves by themselves,^c or the roots, are taken in drink as a cure for opisthotonic tetanus. White thorn.

LXVII. A gum also is produced in Egypt from the acacia-thorn, from a pale tree and a dark, and likewise from a green tree, which is far better than the former two.^d Gum is also produced in Galatia; it is very inferior, and comes from a more thorny tree than Acacias.

ῥοῦν γυναικείον καὶ πρὸς ἀναγωγὴν αἵματος καὶ πρὸς ἄλλους ῥευματισμοὺς ἢ ῥίζα παραπλησίως εὐθετεῖ (of the ἄκανθα Ἀραβική). For *spina* see *Index of Plants*.

^b Not real silk, but obtained from the caterpillar of *Lasiocampa otus*, from which *vestes Coae* were made.

^c *Ipsa* seems here, as often in Pliny, to mean that no other ingredient is added to the remedy. It is uncertain, however, whether the leaves are to be swallowed, perhaps beaten up, in water or wine, or whether an infusion is to be made of leaves or root. The latter way of preparing the medicine would be more natural, but the usual verb for it is *decoquere*.

^d The text seems to be corrupt here beyond reconstruction. I print Mayhoff's text. Detlefsen's would give: "An acacia thorn grows in Egypt, both with a pale and with a dark tree: and also a green one, which is far superior to the others." *Acacia* can mean either the tree or the gum from it.

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- omnium lenticulae simile, minore tantum et grano et folliculo. colligitur autumnno, ante collectum nimio validius spissat. sucus ex folliculis aqua caelesti perfusis, mox in pila tuis exprimitur organis, tunc densatur in sole mortariis in pastillos. fit et¹ foliis minus efficax. ad coria perficienda semine pro
 110 galla utuntur. foliorum sucus et Galaticae acaciae nigerrimus inprobatur, item qui valde rufus. purpurea aut leucophaea et quae facillime diluitur—vis² summa ad spissandum refrigerandumque est—oculorum medicamentis ante alia utiles³. lavantur in eos usus pastilli, ab aliis torrentur, ab aliis peruruntur. capillum tingunt, sanant ignem sacrum, ulcera quae serpunt et umida vitia corporis, collectiones, articulos contusos, perniones, pterygia. abundantiam mensum in feminis sistunt vulvamque et sedem procidentes, item oculos, oris ulcera et genitalium.
- 111 LXVIII. Vulgaris quoque haec spina ex qua aenae fulloniae implentur radicis⁴ usus habet. per Hispanias quidem multi et inter odores et ad unguenta utuntur illa aspalathum vocantes. est sine

¹ et *codd. et edd.*; *an ex?* *Post mortariis add. et digeritur Warmington.*

² vis cum aliquot *codd. Mayhoff, qui dist. ut in textu. Fortasse: vi . . . refrigerandum sunt, ut ipse Mayhoff coni.*

³ utiles *codd., Mayhoff: utilis Sillig, Deilefsen.*

⁴ radicis] *an radiculae legendum? Sed vide XII. § 110 radix (sc. aspalathi) unguentis expetitur.*

^a Perhaps *mortariis* should be deleted as a gloss on either *pila* or *organis*.

the others. The seed of all the trees is like the lentil, only both grain and pod are smaller. It is gathered in autumn; if gathered earlier, its tonic properties are too powerful. The pods are steeped in rain-water and then pounded in a mortar. The juice is then extracted from them by presses, and finally thickened into lozenges by exposure to the sun in basins.^a A juice is also extracted from the leaves, but it is less efficacious. For tanning leather they use the seed instead of gall-nuts. The juice of the leaves and of the Galatian acacia is very dark, and considered of little value, as is also the juice of the deep-red kind. The purple gum, the dun-coloured, and that which dissolves most easily—these have the highest tonic and cooling qualities^b—are particularly useful for eye-salves. For these purposes the lozenges are washed by some, roasted by others and by others thoroughly burnt. They dye the hair, and cure erysipelas, creeping ulcers, moist complaints of the body,^c gatherings, bruised joints, chilblains and hangnails.^d They check excessive menstruation in women and are good for prolapsus of the uterus and anus, also for the eyes and for sores of the mouth and of the genitals.

LXVIII. Our common thorn also, from which the fullers' coppers are filled, has a root with uses. Throughout the Spains, many use it as a scent and as an ingredient of ointments, calling it *aspalathus*. *(other thorn)*

^b Mayhoff's conjecture, *sunt* for *est*, with *vi* of the MSS. retained, is perhaps simpler. The sense, however, is not altered.

^c Perhaps excessive or offensive perspiration.

^d The eye-complaint may be referred to here.

- dubio hoc nomine spina silvestris in oriente, ut diximus, candida, magnitudine et arboris iustae,
 112 (LXIX) sed et frutex humilior, aequae spinosus, in Nisyro¹ et Rhodiorum insulis, quem alii erysisceptrum, alii sphagnum,² Syri diaxydon vocant. optimus qui minime ferulaceus, rubens aut in purpuram vergens
 113 detracto cortice. nascitur pluribus locis, sed non ubique odoratus. quam vim haberet caelesti arcu in eum innixum diximus. sanat taetra oris ulcera et ozaenas, genitalia exulcerata aut carbunculantia, item rhagadia, inflationes potu discutit et strangurias. cortex sanguinem reddentibus medetur. decoctum eius alvum sistit. similia praestare silvestrem quoque putant.
- 114 LXX. Spina est appendix appellata, quoniam baccae puniceo colore in ea appendices vocantur. hae crude per se et aridae in vino decoctae alvum citam ac tormina conpescunt. pyracanthae baccae contra serpentium ictus bibuntur.
- 115 LXXI. Paliurus quoque spinae genus est. semen eius Afri zuram vocant, contra scorpiones efficacissimum, item calculosis et tussi. folia adstrictoriam vim

¹ *Hic coll. Diosc. Syria add. Warmington.*

² sphagnum] phasganon *Pintianus, Mayhoff.*

^a See Book XII. § 110. Dioscorides (I. 20, Wellmann) has : ἀσπάλαθος, οἱ δὲ ἐρυσίσκηπτρον, οἱ δὲ σφάγνον, Σύροι δὲ διάξυλον καλοῦσι. θάμνος ἐστὶ . . . γεννώμενος ἐν Νισύρῳ καὶ Συρίᾳ καὶ τῇ Ῥοδίᾳ, ᾧ χρῶνται οἱ μυρεψοὶ εἰς τὰς τῶν μύρων στύψεις. There is a well attested reading φάσγανον (*sword*): hence Mayhoff's *phasganon*. Dioscorides speaks also of κύπερος· οἱ δὲ ἀσπάλαθον καλοῦσιν (I. 4).

^b See XII. § 110 in *eodem tractu aspalathus nascitur, spina*

There is without doubt, as I have said,^a a wild thorn of this name in the East, white, and as big as an ordinary tree, (LXIX) but it is also the name of a shrub, lower in height but equally thorny, that grows in the islands Nisyrus and Rhodes, called by some erysisceptrum, by others sphagnos, and by the Syrians diaxylon. The best is that least like fennel-giant, of a red colour or inclining to purple when the bark has been removed. It grows in several regions, but not everywhere has it a perfume. I have described^b its powerful scent when the rainbow rests extended over the shrub. It cures foul ulcers in the mouth, polypus, ulcerated genitals and those with carbuncles, and also chaps; taken in drink it clears away flatulence and strangury. The bark is good for those who bring up blood, and a decoction of it checks looseness of the bowels. The wild shrub also is thought to have similar properties.

LXX. There is also a thorn with the name of appendix, because the bright red berries hanging from it are called appendixes. These, either raw by themselves or dried and boiled down in wine, check looseness of the bowels and colic. The berries of pyracantha are taken in drink for the bites of serpents.

LXXI. Paliurus too is a species of thorn. Its seed the Africans call zura; it is very efficacious for scorpion sting, and likewise for stone and cough. The leaves have an astringent quality. The root *candida magnitudine arboris modicae, flore rosae. radix unguentis expetitur, tradunt in quocumque frutice curretur arcus caelestis, eandem quae sit aspalathi suavitatem odoris exsistere; sed si in aspalatho, inenarrabilem quandam. quam quidam erysisceptrum vocant, alii sceptrum.* See *Index of Plants, s.v. Aspalathus.*

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habent. radix discutit panos, collectiones, vomicas, urinas trahit pota. decoctum eius in vino alvum sistit, serpentibus adversatur. radix praecipue datur in vino.

116 LXXII. Aquifoliae folia¹ contusa addito sale articulorum morbis prosunt, bacae purgationi feminarum, coeliacis, dysintericis, cholericis. in vino potae sistunt alvum. radix decocta et inlita extrahit infixa corpori, utilissima et luxatis tumoribusque. aquifolia arbor in domo aut villa sata veneficia arcet. flore eius aquam glaciari Pythagoras tradit, item baculum ex ea factum in quodvis animal emissum, etiamsi citra ceciderit defectu mittentis, ipsum per sese cupito² propius adlabi, tam praecipuam naturam inesse arbori. taxi arboris fumus necat mures.

117 LXXIII. Nec rubos ad maleficia tantum genuit natura, ideoque et mora his, hoc est vel hominibus cibos, dedit. vim habent siccandi, adstringendi, gingivis, tonsillis, genitalibus accommodatissimi. adversantur serpentium sceleratissimis, haemorrhoidi et presteri, flos aut mora scorpionibus, vulnera sine collectionum periculo iungunt, urinas eorum caules
118 cient. teneri³ tunduntur exprimiturque succus, mox sole cogitur in crassitudinem mellis, singulari remedio

¹ aquifoliae folia *Mayhoff*: aquifolia *Dellefsen*: aliqui folia aut folia aliqui *codd*.

² cupito *Dellefsen*: cubito *Mayhoff*: cubito, cubitu, recubitu *codd*.

³ eorum caules cient. teneri *Dellefsen*: cient. caules eorum teneri *Mayhoff*: varia *codd*.

^a The vulgate *recubitu* is explained by Forcellini as *subsultus ille quem faciunt corpora in solum durum incidentia*. Some have even thought that there is an allusion to the boomerang. This does not suit *adlabi*, and in the context *propius* must be nearer the mark, not nearer the thrower. *Recubitu* arose from wrong division of *sese cubitu*. As a cubit is not far for a missile

perses superficial abscesses, gatherings and boils; taken in drink it is diuretic. A decoction of it in wine checks looseness of the bowels and neutralizes the poison of serpents. The root especially is given in wine.

LXXII. The leaves of the holly, crushed and *Holly.* with the addition of salt, are good for diseases of the joints, while the berries are good for menstruation, coeliac trouble, dysentery and cholera. Taken in wine they check looseness of the bowels. An application of the decocted root extracts objects embedded in the flesh, and is very useful for dislocations and swellings. A holly tree planted in a town house or country house keeps off magic influences. Pythagoras has recorded that by its blossom water is solidified, and that a holly stick, cast at any animal, even if through want of strength in the thrower it falls short of the quarry, of its own accord rolls nearer the mark,^a so powerful is the nature of this tree. The smoke of the yew trec kills rats and mice.

LXXIII. Not even brambles did Nature create *Brambles.* for harmful purposes only, and so she has given them their blackberries, that are food even for men. They have a drying and astringent property, being very good for gums, tonsils and genitals. They counteract the venom of the most vicious serpents, such as the haemorrhoids and prester; the bloom or the berry counteracts that of scorpions. They close wounds without any danger of gatherings. Their stalks are diuretic, being pounded when young and the juice extracted, which is then condensed in the sun to the

to ricochet I have preferred (doubtfully) Detlefsen's *cupito* to Mayhoff's *cubito*. Warmington would read *cubitu*: the holly stick, lying down as it were, moves towards the mark.

- contra mala oris oculorumque, sanguinem exscreantes, anginas, vulvas, sedes, coeliacos intellegitur potus aut inlitus. oris quidem vitiis etiam folia comman-
 119 ducata prosunt, et ulceribus manantibus aut quibus-
 eorum et auribus. sanat condylomata cum rosaceo
 cerato. cauliculorum ex vino decoctum uvae prae-
 sentaneum remedium est. idem per se in cibo sumpti
 cymae modo aut decocti in vino austero labantes
 dentes firmant. alvum sistunt et profluvia sanguinis,
 dysintericis prosunt, siccantur in umbra, ut cinis
 crematorum uvam reprimat. folia quoque arefacta
 et contusa iumentorum ulceribus utilia traduntur.
 120 mora quae in his nascuntur vel efficaciorē stomaticeā
 prae-buerint quam sativa morus. eadem compositione
 vel cum hypocisthide tantum et melle bibuntur in
 cholera et a cardiacis et contra araneos. inter
 medicamenta quae styptica vocant nihil efficacius
 rubi mora ferentis radice decocta in vino ad tertias
 partes, ut coluantur eo oris ulcera et sedis foveantur-
 que¹; tanta vis est ut spongeae ipsae lapidescant.

¹ foveanturque *tres codd.*, *Detlefsen*: foveantur, quae *duo codd.*, *Mayhoff*.

^a Perhaps "on."

^b For *cardiacus morbus* see Celsus III. 19 with Spencer's note. The Romans seem to have confused certain forms of indigestion and heart trouble. Perhaps the latter is alluded to here.

^c See Celsus VI. 6, 8 for *πρόπτωσις* of the eyes.

thickness of honey, and is considered to be, whether taken by the mouth or used as ointment, a specific for affections of the mouth or eyes, for spitting of blood, quinsy, troubles of the uterus or anus, and for coeliac affections. For affections of the mouth, indeed, even the chewed leaves are efficacious, and they are used as ointment for running sores, or for any kind of sore on the head. Even prepared thus without other ingredient they are applied near^a the left breast for heart-burn,^b also to the stomach for stomach-ache, and to the eyes for procidence.^c The juice of them is also dropped into the ears. Added to rose wax-salve it heals condylomata. A decoction in wine of its tender shoots is a quick remedy for affections of the uvula. The same shoots, eaten by themselves like cabbage sprouts, or a decoction of them in a dry wine, strengthen loose teeth. They check looseness of the bowels and discharges of blood, and are good for dysentery. They are dried in the shade and then burnt so that the ash may reduce a relaxed uvula. The leaves also dried and crushed are said to be useful for sores on draught animals. The blackberries which grow on them can furnish a better mouth-medicine than even the cultivated mulberry. Made up on the same prescription or with hypocisthis and honey only, they are taken in drink for cholera, for heart-burn, and for the stings of spiders. Among the medicines that are called styptics, there is none more effective than the root of a bramble bearing blackberries boiled down in wine to one third, so that sores in the mouth and the anus may be rinsed with the decoction and fomented; so powerful is it that the very sponges used become hard as stone.

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- 121 LXXIV. Alterum genus rubi in quo rosa nascitur gignit pululam castaneae similem, calculosis praecipuo remedio. alia est cynorrhoda quam proximo dicemus volumine. cynosbaton alii cynapanxin, alii neurospaston voeant. folium habet vestigio hominis simile. fert et uvam nigram, in cuius acino nervum habet, unde neurospastos dicitur tota, alia quam cappari quod medici cynosbaton appellarunt. huius thyrsus ad remedia splenis et inflationes conditus ex aeeto manditur. nervus eius cum mastiche Chia com-
- 122 manducatus os purgat. ruborum rosa alopecias eum axungia emendat, mora capillum tingunt cum omphacino oleo. flos mori messe colligitur. eandidus pleureticis praecipuus ex vino potus, item coeliaeis. radix ad tertias decocta alvum sistit et sanguinem. item dentes collutos decocto. eodem sueo foveantur sedis atque genitalium uleera. cinis e radice re-
primit uvam.
- 123 LXXV. Idaeus rubus appellatus est, quoniam in Ida non alius nascitur. est autem tenerior ac minor, rarioribus calamis innocentioribusque, sub arborum umbra nascens. huius flos cum melle epiphoris inlinitur et ignibus sacris, stomachicisque ex aqua bibendus datur, cetera eadem praestat quae supra dicta.

^a Book XXV. § 17. The round growth is the spiny gall caused by the gall-fly *Rhoditis rosarum*, not the gall of XXV. 18.

^b The identification of this neurospastos is difficult, because Pliny has possibly confused here different shrubs. See *Index of Plants*, and Dioscorides I 94 and II 173.

^c It is very doubtful what *thyrsus* means here. In XXI. § 87 it is distinguished from *caulis*. If the black currant be the plant referred to in the present passage, the *thyrsus* may be the cluster of stalks on which the currants form.

^d Or, "with diseases of the oesophagus."

LXXIV. A second kind of bramble, on which a rose grows, produces a little round growth like a chestnut, an excellent remedy for the stone. It is different from the dog-rose, about which I shall speak ^a in the next book.

The cynosbatos is called by some cynapanxis, by others neurospastos. It has a leaf like a man's foot-print. It also bears a black cluster, in the berry of which it has a string, whence the whole shrub is called neurospastos.^b It is different from the caper that the physicians have called cynosbatos. The stalk ^c of this, pickled in vinegar, is chewed as a remedy for affections of the spleen and for flatulence. The string of it chewed up with Chian mastic cleanses the mouth. The rose-blossom of brambles with axlegrease clears away mange; the berries mixed with oil of unripe grapes dye the hair. The blossom of the blackberry is gathered at harvest-time. The white blossom taken in wine is excellent for pleurisy and also for coeliac affections. The root, boiled down to one-third, checks looseness of the bowels and haemorrhage; the decoction also makes a wash that strengthens the teeth. With the same juice are fomented sores of the anus and of the genitals. The ash from the root replaces a relaxed uvula.

LXXV. The Idaean bramble was so called because no other grows on Mount Ida. It is, however, more delicate than other brambles and smaller, with the canes farther apart and less prickly; it grows under the shade of trees. The blossom of it with honey is applied to fluxes of the eyes and to erysipelas, and in water it is given as a drink to patients with disordered stomachs ^d; its other properties are the same as those mentioned above.

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- 124 LXXVI. Inter genera ruborum rhamnos appellatur a Graecis candidior, fruticosior et¹ ramos spargens rectis aculeis, non ut ceteri aduncis, foliis maioribus. alterum genus eius silvestre, nigrius et quadamtenus rubens, fert veluti folliculos. huius radice decocta in aqua fit medicamentum quod vocatur lycium. semen secundas trahit. ille autem candidior adstringit magis, refrigerat, collectionibus et vulneribus adcommodatior. folia utriusque et cruda et decocta inlinuntur cum oleo.
- 125 LXXVII. Lycium praestantius spina fieri tradunt quam et pyxacanthon chironian vocant, qualem in Indicis arboribus diximus, quoniam longe praestantissimum existimatur Indicum. coquuntur in aqua tusi rami radicesque summae amaritudinis aereo vase per triduum, iterumque exempto ligno, donec mellis crassitudo fiat. adulteratur amaris sucis, etiam
 126 amurca et felle bubulo. spuma eius ac flos quidam oculorum medicamentis additur. reliquo suco faciem purgat et psoras sanat, erosos angulos oculorum veteresque fluctiones, aures purulentas, tonsillas, gingivas, tussim, sanguinis excreationes fabae magnitudine devoratum aut, si ex vulneribus fluat, inlitum, rhagadia, genitalium ulcera, adtritum, ulcera recentia et serpentia ac putrescentia, in naribus clavos, suppurationes. bibitur et mulieribus in lacte contra

¹ fruticosior et *plures codd.*, *Mayhoff*: frutex is floret X: et fruticosior, is floret *Dellefsen, vulg.*

^a From Chiron, the centaur who was credited with great medical knowledge.

^b See XII. § 31.

LXXVI. Among the different kinds of brambles is one called rhamnos by the Greeks, paler, more bushy, throwing out branches with straight thorns, not hooked like those of other brambles, and with larger leaves. The other kind of it is wild, darker and inclining to red, bearing a sort of pod. A decoction of the root of this in water makes a drug called lycium. *Lycium, etc.* The seed of it brings away the after-birth. The other, the paler kind, is more astringent, cooling, and more suitable for the treatment of gatherings and wounds. The leaves of either kind, raw or boiled, are made up into an ointment with oil.

LXXVII. A superior lycium is said to be made from the thorn which is also called chironian ^a boxthorn, the characteristics of which I have described ^b among Indian trees, for Indian lycium is considered by far the best. The pounded branches and roots, which are of extreme bitterness, are boiled in water in a copper vessel for three days; the woody pieces are then taken away and the rest boiled again until it is of the consistency of honey. It is adulterated with bitter juices, even with lees of olive oil and with ox gall. The froth, which may be called the flower of the decoction, is an ingredient of remedies for the eyes. The rest of the juice is used for clearing spots from the face and for the cure of itch, chronic fluxes of the eyes and corroding sores in their corners, pus in the ears, sore tonsils and gums, cough and spitting of blood. For these a piece the size of a bean is swallowed, or if there is discharge from wounds it is applied locally, as it is to chaps, ulcers of the genitals, excoriations, fresh, spreading and also festering ulcers, excrescences in the nostrils and suppurations. It is also taken in milk by women for excessive men-

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127 profluvia. Indici differentia glaebris extrinsecus nigris, intus rufis, cum fregeris, cito nigrescentibus. adstringit vehementer cum amaritudine, ad eadem omnia utile, sed praecipue ad genitalia.

128 LXXVIII. Sunt qui et sarcocollam spinae lacrimam putent, pollini turis similem, cum quadam acrimonia dulcem, cumminosam.¹ sistit fluxiones, inlinitur infantibus maxime. vetustate et haec nigrescit, melior quo candidior.

129 LXXIX. Unum etiamnum arborum medicinis debetur nobile medicamentum quod oporicen vocant. fit ad dysintericos stomachique vitia in congio musti albi lento vapore decoctis malis cotoneis quinque cum suis seminibus, punicis totidem, sorborum sextario, et pari mensura eius quod rhun Syriacam vocant, croci semuncia. coquitur usque ad crassitudinem mellis.

LXXX. His subtexemus ea quae Graeci communicatione nominum in ambiguo fecere anne arborum essent.

130 Chamaedrys herba est quae Latine trixago dicitur. aliqui eam chamaeropem, alii Teucriam appellavere. folia habet magnitudine mentae, colore et divisura

¹ cumminosam *Deilefsen, Mayhoff*: gummosam. cum vino tusa *vulg.*

^a Sarcocolla is a Greek word (σαρκόκολλα) meaning "the fastener of (cut) flesh." Dioscorides (III. 85, Wellmann) gives an account similar to Pliny's, but adds that it came from Persia: ἔστι δάκρυον δένδρου γεννωμένου ἐν τῇ Περσίδι, εἰκὸς λιβανωτῷ λεπτῷ, ὑπόκιρρον, ἔμπικρον τῇ γεύσει. δύναμιν δὲ ἔχει κολλητικὴν τραυμάτων καὶ ἐφεκτικὴν τῶν ἐν ὀφθαλμοῖς ῥευμάτων.

^b The Greek ὀπωρική, "fruit conserve."

struation. The Indian variety is distinguished by the lumps being black outside and red inside, quickly turning black when they have been broken. This kind is very astringent, and bitter. It is useful for all the same purposes as are the other kinds, but especially for treating the genitals.

LXXVIII. Some think that *sarcocolla*^a is the *Sarcocolla*. tear-like drop of a thorn. It is like powdered frankincense, sweet with a touch of harshness, and gummy. It checks fluxes, and is used especially as an ointment for babies. It too grows black with age, and the whiter it is the better its quality.

LXXIX. There is still one famous remedy, called *Oporice*. *oporice*,^b to be included among the medicines that are obtained from trees. Used for dysentery and stomach troubles, it is made in the following way. In a congius^c of white grape-juice are boiled down over a slow heat five quinces, seeds and all, five pomegranates, one sextarius of sorb-apples, an equal quantity of what is called Syrian sumach, and half an ounce of saffron. The boiling continues until the consistency is that of honey.

LXXX. To these remedies I will add those which, because the Greeks have given the same name to different objects, we might be led to suppose came from trees.^d

The *chamaedrys* ("ground oak") is a plant whose Latin name is *trixago*. Some have called it *chamaedrys*, and others the Trojan plant. It has leaves of the same size as mint leaves, coloured and indented as are those of the oak. Some have called it "saw-
"Ground"
trees.

^c A *congius* was a liquid measure containing six *sextarii*, or nearly six English pints.

^d The plants that follow are all ground "trees."

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- quercus. alii serratam et ab ea serram inventam esse dixerunt, flore paene purpureo. carpitur praegnans suco in petrosis, adversus serpentium venena potu inlituque efficacissima, item stomacho, tussi vetustae, pituitae in gula cohaerescenti, ruptis, convulsis, 131 lateris doloribus. lienem consumit, urinam et menses ciet, ob id incipientibus hydropicis efficax, manualibus scopis eius in tribus heminis aquae decoctis usque ad tertias. faciunt et pastillos terentes eam ex aqua ad supra dicta. sanat et vomicas et vetera ulcera vel sordida cum melle. fit et vinum ex ea pectoris vitiis. foliorum sucus cum oleo caliginem oculorum discutit, ad splenem ex aceto sumitur, excalfacit et perunctione.
- 132 LXXXI. Chamaedaphne unico ramulo est, cubitali ferme; folia tenuiora lauro; semen rubens adnexum foliis. inlinitur capitis doloribus recens, ardores refrigerat, ad tormina cum vino bibitur. menses sucus eius et urinam ciet potu partusque difficiles in lana adpositus.
- 133 LXXXII. Chamelaea similitudinem foliorum oleae habet—sunt autem amara, odorata¹—in petrosis palmum altitudine non excedente. alvum purgat. detrahit pituitam, bilem, foliis in duabus absinthii partibus decoctis, suco eo cum melle poto. foliis

¹ *Sic dist. Mayhoff.*

^a Or: "It also heals abscesses and chronic sores, and even foul ones if honey is added."

^b Perhaps "inflammation." See note on XXVI § 32.

^c The method of preparing the medicine may apply only if it be taken for the cure of bile. The Latin would allow of this interpretation, but it seems more natural, and equally good Latin, for the method to apply to all the three purposes mentioned.

shaped," saying that it gave rise to the invention of the saw; its blossom is almost purple. It is cropped in rocky localities and is full of juice, being a very efficacious remedy, either by the mouth or as an ointment, for the poison of serpents, and also for disordered stomach, chronic cough, phlegm collected in the throat, ruptures, sprains and pain in the side. It reduces the spleen, promotes menstruation, and is diuretic, being for this reason efficacious in incipient dropsy, a handful of its sprays being boiled down to one-third in a sextarius and a half of water. It is ground in water to make lozenges for the purposes mentioned above. With honey it also heals abscesses and chronic sores, even when foul.^a There is also made from it a wine, which is useful for troubles of the chest. The juice of the leaves with oil clears away dimness of vision; for the spleen it is taken in vinegar. Used also as embrocation it is warming.

LXXXI. The chamaedaphne ("ground bay") *Chamaedaphne* consists of a single small stem, about a cubit high; the leaves are more slender than those of the bay; the seed, of a red colour, is attached to the leaves. It is applied fresh to the head for headache, it cools feverishness,^b and for colic it is taken with wine. Its juice when taken by the mouth promotes menstruation and urine, and applied as a pessary in wool it makes easier difficult child-birth.

LXXXII. The chamelaea ("ground olive") *Chamelaea* has leaves which resemble those of the olive—they are bitter, however, and scented—growing in rocky places and not exceeding a span in height. It purges the bowels, and draws away phlegm and bile; a decoction is made of the leaves with twice the quantity^c of wormwood, this juice being drunk with honey.

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impositis et ulcera purgantur. aiunt, si quis ante solis ortum eam capiat dicatque ad albugines oculorum se capere, adalligata discuti id vitium, quoquo modo vero collectam iumentorum pecorumque oculis salutarem esse.

- 134 LXXXIII. Chamaesyce lentis folia habet nihil se adtollentia, in aridis, petrosis, claritati oculorum et contra subfusiones utilissima¹ et cicatriccs, caligines, nubeculas inuncta.¹ vulvae dolores sedat adposita in linteolo. tollit et verrucas omnium generum inlita. prodest et orthopnoicis.

- 135 LXXXIV. Chamaecissos spicata est tritici modo, ramulis quinis fere, foliosa²—cum floret, existimari potest alba viola—radice tenui. bibunt ischiadici folia tribus obolis in vini cyathis duobus septem³ diebus, admodum amara potione.

LXXXV. Chamaeleucen apud nos farfarum sive farfugium vocant. nascitur secundum fluvios, folio populi, sed ampliore. radix eius inponitur carbonibus cupressi, atque is nidor per infundibulum bibitur inveteratae tussi.

¹ utilissima et cicatrices, caligines, <muriculas,> nubeculas inuncta *vulg.* in vino cocta *ante* inuncta *addito*: utilissimum [*cum lacunae signo*]*—*inunctus *Ianus, Dellefsen*: utilis suco ad cicatrices, caligines, nubeculas inuncto *Mayhoff*: utilissimum et . . . inuncto *aut* inuncta *aut* iniunctus *codd.*

² *Sic dist. Mayhoff.*

³ septem *Detlefsen, codd.*: septenis *Mayhoff.*

^a The text of this sentence is most uncertain, Perhaps Pliny wrote hurriedly or carelessly; *in aridis, petrosis*, a loose ablative with nothing to depend on, suggests that he did so. The text of Detlefsen is impossible to translate without filling

An application of the leaves also cleanses ulcers. It is said that if anyone before sunrise says while plucking it that he does so "to cure white spots in the eyes," it disperses this affection if worn as an amulet; but that, in whatever way it is gathered, it is beneficial for the eyes of beasts of burden and of cattle.

LXXXIII. The chamaesyce ("ground fig") has *Chamaesyce* leaves like those of the lentil, and not rising above the ground. It is found in dry and rocky localities. Very useful ^a for clearness of vision and for arresting cataract, an ointment prepared from it is also used most beneficially for scars, dimness of sight and films over the eyes. Applied as a pessary on a bit of linen it soothes pains of the uterus. Warts too of every kind are removed by an ointment made from it. It is also beneficial for orthopnoea.

LXXXIV. The chamaecissos ("ground ivy") is a *Chamaecissos*. plant with ears like those of wheat, with about five little branches and many leaves. When in blossom it might be taken for the white violet. The root is slender. For sciatica three oboli of the leaves are taken in two cyathi of wine for seven days, but it is a very bitter draught.

LXXXV. The chamaeleuce ("ground poplar") is *Chamaeleuce* called by us Romans farfarum or farfugium. It grows by the side of rivers, and has leaves like those of the poplar, but larger. Its root is placed on live coals of cypress wood, and the fumes of it inhaled through a funnel for chronic cough.

up the lacuna; that of Mayhoff, "with a juice used as an ointment for scars, etc.," is clever, but still leaves the Latin odd. The general sense is quite plain. *Utilissima* and *utilissimum* (spelt -mū) might easily be confused.

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- 136 LXXXVI. Chamaepeuce laricis folio similis lum-
 borum et spinae doloribus propria est. Chamae-
 cyparissos herba ex vino pota contra venena serpen-
 tium omnium scorpionumque pollet. Ampeloprasen
 in vinetis nascitur, foliis porri, ructu gravis, contra
 serpentium ictus efficax. urinam et menses ciet,
 eruptiones sanguinis per genitale inhibet potum
 inpositumque. datur et a partu mulieribus et contra
 canis morsus. ea quoque quae stachys vocatur porri
 similitudinem habet, longioribus foliis pluribusque et
 odoris iucundi colorisque in luteum inclinati. pellit
 menstrua.
- 137 LXXXVII. Clinopodium alii cleopiceton, alii zo-
 pyrontion, alii ocimoides appellant, serpyllo similem,
 surculosam, palmi altitudine, in petrosis, orbiculato
 florum¹ ambitu speciem lecti pedum praebente.
 bibitur ad convulsa, rupta, strangurias, serpentium
 ictus, item decoctae² sucus.
- 138 LXXXVIII. Nunc subtexemus herbas mirabiles
 quidem, sed minus claras, nobilibus in sequentia
 volumina dilatis.

Centunculum vocant nostri, foliis ad similitudinem
 capitis paenularum, iacentem in arvis, Graeci
 clematidem, egregii effectus ad sistendam alvum
 in vino austero. idem sanguinem sistit tritus

¹ florum *Warmington*: foliorum *codd.*

² decoctae sucus *duo codd. et Mayhoff*, qui et ius pro sucus
con., fortasse recte: decocta et sucus *ceteri codd., Deilefsen.*

^a Dioscorides III. 95 (Wellmann): (ἔχον) ἄνθη ὅμοια κλίνης
 ποσὶν ἐκ διαστημάτων, "having flowers like the feet of a couch
 at intervals." This is a good description of wild basil; it is
 the flowers, not the leaves, that are arranged in a circle at
 intervals. Unless Pliny has made a mistake, we must read,
 as in the Latin text, *florum* for *foliorum* of the MSS.

LXXXVI. The chamaepeuce ("ground larch") has a leaf resembling that of the larch and is specific for lumbago and pains in the spine. The chamaecyparissos ("ground cypress") taken in wine is a powerful antidote to the poisons of all serpents and scorpions. The ampeloprason ("vine leek") grows in vineyards, has the leaves of a leek, causes violent belching, but is an antidote for the bites of serpents. It promotes urine and menstruation. Taken in drink and applied externally it checks discharges of blood from the genital organ. It is also administered to women after child-birth and for the bites of dogs. That plant also which is called stachys bears a resemblance to the leek, but has longer and more numerous leaves, a pleasant smell and a colour verging on saffron yellow. It is a powerful emmenagogue.

LXXXVII. Clinopodium also called cleopiceton, zopyrontion or ocimoides, is like wild thyme, ligneous, a span high, and found on rocky soils; the flowers are arranged in a round circuit,^a giving the appearance of the feet of a couch. It is taken in drink for sprains, ruptures, strangury and the bites of serpents; the juice of a decoction is likewise employed.

LXXXVIII. I shall now append some plants, wonderful indeed but not so well known, postponing more famous ones for succeeding books.

Roman authorities give the name centunculus to a plant with leaves resembling the hood of a mantle, found lying on the ground in cultivated fields, and called by the Greeks clematis.^b Taken in a dry wine it is very good for arresting looseness of the bowels. Bleeding too is arrested by this plant

^b Not our clematis. See *Index of Plants*.

oxymelitis aut aquae calidae cyathis quinque denarii unius pondere, sic et ad secundas mulierum efficax.

- 139 LXXXIX. Sed Graeci clematidas et alias habent, unam quam aliqui aetiten vocant, alii laginen, nonnulli tenuem scamoniam. ramos habet bipedales,¹ foliosos, non dissimiles scamoniae, nisi quod nigriora minoraque sunt folia. invenitur in vineis arisque. estur ut olus cum oleo ac sale, alvum ciet. eadem dysintericis cum lini semine ex vino austero sorbetur.
- 140 folia epiphoris inponuntur cum polenta subposito udo linteolo. strumas inposita ad suppurationem perducunt, deinde axungia adiecta percurant, item haemorrhoida cum oleo viridi, phthisicos iuvant cum melle. lactis quoque ubertatem faciunt in cibis, et infantibus inlita capillum alunt, ex aceto edentium venerem stimulant.

- 141 XC. Est alia clematis Aegyptia cognomine, quae ab aliis daphnoides, ab aliis polygonoides vocatur, folio lauri, longa tenuisque, adversus serpentes et privatim aspidas ex aceto pota efficax.

- 142 XCI. Aegyptus hanc maxime gignit, quae et aron, de qua inter bulbos diximus, magnae cum dracontio litis. quidam enim eandem esse dixere. Glaucias satu discrevit, dracontium silvestrem arum

¹ bipedales *Hard.*: pedales *multi codd., Mayhoff.*

^a See XIX. § 96. The translation might be: "known also as aron," but there is no other evidence that clematis was called aron.

^b Littré has: "par le lieu de leur croissance," and so Bostock and Riley.

pounded and taken in doses of one denarius by weight to five cyathi of oxymel or warm water; this prescription also helps the after-birth.

LXXXIX. But the Greeks have also other kinds of *clematis*, one of which some call *aetites*, others *lagine*, and others the “slender scammony.” It has branches two feet long, leafy, and not unlike those of scammony, except that the leaves are darker and smaller. It is found in vineyards and cultivated fields, is eaten as salad with oil and salt, and relaxes the bowels. With linseed it is also drunk in a dry wine by sufferers from dysentery. The leaves with pearl barley are applied to fluxes from the eyes, a damp rag being first placed underneath. An application draws scrofulous sores to suppuration, and then a further application with axle-grease completes the cure. With green oil also they are beneficial for haemorrhoids, and with honey for consumptives. Taken as a food they also promote an abundant supply of human milk, applied to the heads of babies they stimulate the growth of hair, and eaten with vinegar they act as an aphrodisiac.

XC. There is another *clematis*, called also the Egyptian, by some *daphnoides* and by others *polygonoides*, with a leaf like that of the bay; it is long and slender, and taken in vinegar is efficacious against the bite of serpents, being specific for that of asps.

XCI. It is Egypt especially that produces this *clematis*, and also the *aron*, which I have mentioned ^a in my section on bulbs; about it and *dracontium* there has been sharp controversy, for some have asserted that the two are the same. Glaucias distinguished them by their mode of reproduction,^b declaring that *dracontium* is wild *aron*. Some have

Aron, dra-
contium, an
dracunculus.

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pronuntiando. aliqui radicem arum appellarunt. caulem vero dracontium, in totum alium, si modo hic est qui apud nos dracunculus vocatur. namque aros radicem nigram in latitudinem rotundam habet multoque maiorem et ¹ qua manus inpleatur, dracunculus subrutilam et draconis convoluti modo, unde et nomen.

- 143 XCII. Quin et ipsi Graeci inmensam posuere differentiam: semen dracunculi fervens tradendo, tantumque ei virus ut olfactum gravidis abortum inferret, aron miris laudibus tulere, primum in cibis, feminam praeferentes, quoniam mas durior esset et in coquendo lentior. pectoris vitia purgare, aridum potioni inspersum aut ecligmate urinam et
144 menses ciere, sic et in oxymelite potum. stomacho interaneisque exulceratis ex lacte ovillo bibendum, ad tussim in cinere coctum dedere ex oleo. alii coxere in lacte ut decoctum biberetur. epiphoris
145 elixum inposuere, item suggillatis, tonsillis. Glaucias ² ex oleo haemorrhoidum vitio infudit,³ lentigines ex melle inlinens.⁴ laudavit et pro antidoto contra venena, pleureticis, peripleumoniacis quo tussientibus

¹ et *codd.* et *Mayhoff*: ut *Detlefsen*.

² tonsillis. Glaucias *Mayhoff*: tonsillis, *Detlefsen*: tonsillas *ferre omnes codd.*

³ infudit V, *Mayhoff*: infundit dX, *Sillig*: infudere *vulg.*, *Detlefsen*: effudit *Cleophrastus Ianus*.

⁴ illinens *codd.*: illinentes *vulg.*, *Detlefsen*.

^a With the reading of *Detlefsen*: "much too large merely to fill the hand."

^b *Draco*, from which "*dracunculus*" is derived. *Dioscorides* says (II. 166) that it is the *καυλός* (stem) which is *ὀφιοειδής* ("like a snake").

^c Or, with no comma at *cibis* and *primum* = *priorem*, "preferring the female as a food etc."

called the root aron, but the stem dracontium, though the latter is a totally different plant, if at least it is the same as that called by the Romans dracunculus. For the aron has a black root, broad and round, and much larger, large^a enough to fill the hand, but dracunculus a reddish one like a coiled snake,^b from which its name is derived.

XCII. The Greeks themselves moreover have put a wide difference between the two plants. They describe the seed of dracunculus as hot, with so foul a stench that the smell causes pregnant women to miscarry; aron they have lauded to the skies as an excellent food,^c preferring however the female plant, on the ground that the male is harder, and slower to cook,^d adding that it clears the chest of disorders, and that dried and sprinkled in drink or made into an electuary it is diuretic and an emmenagogue, as it is also when drunk in oxymel. They prescribed it to be drunk in sheep's milk for ulcerated stomach and bowels; cooked on hot ash and taken in oil they gave it for a cough. Others boiled it in milk for the decoction to be drunk. Thoroughly boiled it was applied by them to fluxes from the eyes, and likewise to bruises and to affected tonsils. Glaucias^e injected it in oil for troublesome piles, using it with honey as an ointment for freckles. He recommended it also as an antidote against poisons, and, prepared as for coughs, for pleurisy and

^a Or, "slower to digest," if *coquo* ever = *concoquo*.

^e The emendation of Mayhoff (*tonsillis Glaucias* copied as *tonsillas*) is confirmed by the reading *tonsillas*, and by the mention of the physician Glaucias three sections earlier. Both Sillig and Jan thought that a name had been lost as a subject to *infudit*.

PLINY : NATURAL HISTORY

modo. semen intritum cum oleo aut rosaceo infunditur aurium dolori. Dieuches tussientibus et suspiriosis et orthopnoicis et pura excreantibus farinae permixtum pane cocto dedit. Diodotus phthisicis e melle ccligmate et pulmonis vitiis, ossibus etiam fractit
 146 inposuit. partus omnium animalium extrahit naturae circumlitum. sucus radiceis cum melle Attico oculorum caligines, stomachi vitia discutit, tussim decocti ius cum melle. ulcera omnium generum, sive phagedaenae sint sive carcinomata, sive serpent, sive polypi
 147 in naribus, sucus mire sanat. folia ambustis prosuns et vino et oleo cocta. alvum inaniunt ex sale et aceto sumpta, et luxatis cum melle cocta prosunt, item articulis podagricis cum sale recentia vel sicca. Hippocrates utralibet ad collectiones cum melle inposuit. ad menses trahendos seminis vel radiceis drachmae duae in vini cyathis duobus sufficiunt. eadem potio, si a
 148 partu non purgentur, et secundas trahit. Hippocrates et radicem ipsam adposuit. dicunt et in pestilentia salutarem esse in cibis. ebrietatem discutit. serpentes nidore, cum crematur, privatimque aspidas fugat aut inebriat ita ut torpentes inveniantur. perunctos quoque aro e laureo oleo fugiunt. ideo et

^a Dieuches was a " Dogmatic " of the fourth century B.C.

^b This, i.e., " bread crumbs," must, I think, be the sense of *farinae pane cocto*. But one would expect *panis cocti*. Perhaps *farinae* is a gloss that has crept into the text.

^c Diodotus was a physician of the first or second century B.C.

^d *Ius* seems to denote a more liquid form of juice than *sucus*.

pneumonia. The seed pounded up with olive oil or rose oil is injected for ear-ache. Dieuches ^a administered it, thoroughly mixed with the powder from a loaf,^b for coughs, asthma, orthopnoea, and the spitting of pus. Diodotus ^c gave it in the form of an honey electuary for consumption and complaints of the lungs, and even used it as an application for broken bones. Applied round the sexual parts it helps delivery of all animals. Dimness of vision and disorders of the stomach are removed by the juice of the root with Attic honey, and cough by the broth ^d of a decoction with the addition of honey. The juice is a wonderful remedy for ulcers of all kinds, whether corroding, cancerous, spreading, or polypus in the nostrils. The leaves, boiled in wine and oil, are good for burns. Taken in salt and vinegar they are a strong purge, boiled with honey they are good for dislocations, and also fresh or dried, with salt added, for gouty joints. Hippocrates ^e applied them, fresh or dried, with honey locally to boils. As an emmenagogue two drachmae of the seed or root in two cyathi of wine are sufficient, and the same draught, if cleansing after delivery is not effected, also brings away the after-birth. Hippocrates also used the root by itself as a pessary. It is said too that in times of plague it is healthful to take it in one's food. It dissipates the effects of drunkenness. The fumes arising from it when it burns keep away serpents, especially asps, or make them so tipsy that they are found in a state of torpor. Serpents are also kept off if the body is thoroughly rubbed with aron in oil of bay. For this reason it is also considered

^a As I can find no reference to aron in the Hippocratic *Corpus*, Pliny is alluding to some work now lost.

PLINY : NATURAL HISTORY

contra ictus dari potu in vino nigro putant utile. in foliis ari caseus optime servari traditur.

149 XCIII. Dracunculus quem dixi hordeo maturescente effoditur luna crescente. omnino habentem serpentes fugiunt. adeo¹ percussis prodesse potum aiunt; maiorem vim esse,² si ferro non attingatur. sucus eius et aurium dolori prodest.

150 Id autem quod Graeci dracontium vocant triplici effigie demonstratum mihi est: foliis betae, non sine thyrsos, flore purpureo; hoc est simile aro. alii radice longa veluti signata articulosaque monstravere, tribus omnino cauliculis, folia eius³ decoqui ex aceto contra serpentium ictus iubentes. tertia demonstratio fuit folio maiore quam cornus, radice harundinea, totidem, ut adfirmabant, geniculata⁴ nodis quot haberet annos, totidemque esse folia. hi ex vino vel aqua contra serpentes dabant.

151 XCIV. Est et aris quae in eadem Aegypto nascitur, similis aro, minor tantum minoribusque foliis et⁵ utique radice, quae tamen olivae grandis magnitudinem inpleat, alba geminum caulem, altera unum tantum emittens. medetur utraque ulceribus manantibus, item ambustis ac fistulis collyrio inmisso.

¹ adeo] in aceto coni. *Mayhoff*: ideo X, *vulg.*

² vim esse coni. *Detlefsen*, quem sequitur *Mayhoff*: ut menses (aut messes) codd.

³ folia eius X, *vulg.*: foliisque *Detlefsen*: foliis codd., *Sillig*, *Mayhoff*, qui etiam cauliculi foliis coni.

⁴ harundinea . . . geniculata *Detlefsen*: harundineae . . . geniculatae *Mayhoff*: utraque lectio in codd. invenitur.

⁵ et delere vult *Warmington*.

^a What we call "red" wine.

^b In parts of this chapter, Pliny appears to confuse two different plants.

beneficial for snake-bites if one takes aron in a draught of dark ^a wine. It is said that cheese keeps very well if wrapped in leaves of aron.^b

XCIII. The *dracunculus* I have referred to is dug up when the barley is ripening and the moon is crescent. Merely to have it on the person keeps away serpents. All the more beneficial a draught is it said to be to those who have been bitten; and its potency to be greater if iron does not touch the plant. Ear-ache too is relieved by its juice.

That plant, however, which the Greeks call *dracontium* has been pointed out to me in three illustrations; the first ^c has leaves like those of beet, a thyrsus and a purple flower; this is like the aron. Others have pointed out a kind with a long root, which is as it were stamped and knotted, and with three stems in all, prescribing a decoction of its leaves in vinegar for the bite of serpents. The third plant pointed out had a leaf larger than that of the cornel and a root like that of a reed, the knots on it being, they said, as many as the plant is years old, the leaves too being also equal in number. They prescribed this plant in wine or water for snake-bite.

XCIV. There is also a plant called the aris, which too is a native of Egypt. It is similar to the aron, only itself and its leaves are smaller, as is also the root in particular, though it is as big as a full-sized olive. The white kind puts out twin stems, the other kind one only. Either is good for running sores as well as for burns, and for fistula also if a suppository made

Dracontium

Aris and other plants.

^c For the identifications see *Index of Plants*. Pliny in XXV § 8 refers to painted *effigies* of plants in herbals. He implies here that he had never actually seen *dracontium*, but only such coloured drawings.

PLINY : NATURAL HISTORY

nomas sistunt decocta folia earum ¹ in aqua et postea ² trita rosaceo addito. sed unum miraculum ingens ; contacto genitali cuiusque feminini sexus animal in perniciem agi.

152 XCV. Myriophyllon, quod nostri milifolium vocant, caulis est teneri, similis feniculo, plurimis foliis, unde et nomen accepit. nascitur in palustribus, magnifici usus ad vulnera cum aceto. bibitur ad difficultates urinae et vesicae aut suspiria praecipitatisque ex alto. eadem efficacissima ad dentium dolores. Etruria hoc nomine appellat herbam in pratis tenuem, a lateribus capillamenti modo foliosam, eximii usus ad vulnera, boum nervos abscisos vomere solidari ea rursusque iungi addita axungia adfirmans.

153 XCVI. Pseudobunion napi folia habet, fruticans palmi altitudine, laudatissima in Creta. contra tormina, stranguriam laterum praecordiorumque dolores bibuntur rami eius quini senive.

154 XCVII. Myrris, quam alii myrrizan, alii myrran vocant, simillima est cicutae caule foliisque et flore, minor tantum et exilior, cibo non insuavis. ciet menstrua et partus cum vino. aiunt eandem potam in pestilentia salutarem esse. subvenit et phthisicis in sorbitione data. aviditatem cibi facit, phalangiorum morsus restinguit. ulcera quoque in

¹ decocta folia earum *Sillig, vet. lect. Dal.* : decocto earum *Dellefsen* : inlitu decoctarum *ex Dioscoride Mayhoff*.

² postea trita] posca tritarum *Dellefsen* : postea tritarum *Mayhoff*.

^a This chapter is like Dioscorides II 168, where however ἀρίσαρρον is the name of the plant discussed. One sentence is very informative : φθέρει δὲ καὶ αἰδοῖον παντὸς ζώου ἐντεθείσα ἡ ρίζα.

of it be inserted. Corroding ulcers are arrested by an application of their leaves boiled in water and then beaten up with the addition of rose oil. But there is one great marvel connected with this plant: if it touches the sexual organs of any female animal she is driven to destruction.^a

XCV. The myriophyllon, which our people call millefolium, has a tender stem like that of fennel, *Millefolium*, with abundance of leaves, which have also given the plant its name.^b It is found in marshy districts, and with vinegar makes a splendid treatment for wounds. In drink it is taken for strangury, affections of the bladder, asthma, and falls from a height. It is also very efficacious for tooth-ache. In Etruria the name is given to a slim meadow-plant, with many leaves at the sides like hair, and extremely beneficial for wounds; the people declare that applied with axle-grease it unites the tendons of oxen when cut by the plough-share and closes the wound.

XCVI. The pseudobunion has the leaves of the navew; it grows into a bush about a span in height, the most esteemed being found in Crete. For colic, strangury and pains in the sides or hypochondria doses of five or six sprays are taken in drink. *Pseudobunion*.

XCVII. The myrris, also called myrriza or myrra, *Myrris*, is very like hemlock in stem, leaves and flower, but smaller and more slender, and not unpleasant as a food. With wine it promotes menstruation and facilitates delivery. It is said that it is also healthful to take it in drink in time of plague. Given in broth it helps consumptives. It sharpens the appetite and allays the bite of poisonous spiders. Sores too on the

^b Myriophyllon means "plant with ten thousand leaves," and millefolium "plant with a thousand leaves."

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facie aut capite sucus eius in aqua triduo maceratae sanat.

- 155 XCVIII. Oenobrechis folia lentis habet, longiora paulo, florem rubentem, radicem exiguum et gracilem. nascitur circa fontes. siccata in farinae modum et inspersa vino albo strangurias finit, alvum sistit. sucus eius perunctis cum oleo sudores movet.
- 156 XCIX. In promisso herbarum mirabilium occurrit aliqua dicere et de magicis. quae enim mirabiliores? primi eas in nostro orbe celebrare Pythagoras atque Democritus, consecrati Magos. coracesia et calicia Pythagoras aquam glaciari tradit, quarum mentionem apud alios non reperio, nec apud eum alia de his.
- 157 C. Idem minyada appellat et nomine alio corinthiam, cuius decocto in aqua suco protinus sanari ictus serpentium, si foveantur, dicit. eundem effusum¹ in herbam qui vestigio contigerint aut forte respersos insanabili leto perire, monstifica prorsus natura veneni praeterquam contra venena.
- 158 CI. Ab eodem Pythagora aproxis appellatur herba cuius radix e longinquo concipiat ignes ut naphtha, de qua in terrae miraculis diximus. idem tradit, qui

¹ eundem effusum *vulg.*, *Mayhoff*: eandem effusam *codd.*, *Detlefsen*. *Difficilior haec lectio non potior.*

^a These, perhaps "girls' plant" and "beauty plant," have not been identified with any certainty. It is said that *Cissampelos pareira* gives a kind of consistency to water without impairing its transparency. It is difficult, if not impossible, to identify the plants mentioned in this section of Pliny with their scanty descriptions, fanciful names, and "magical" properties.

^b Is it unreasonable to suppose that the names *minydas* and *corinthia* are not unconnected with the legend of the sorceress

face or head are cured by its juice obtained by steeping the plant in water for three days.

XCVIII. The *oenobrechis* has leaves like those of the lentil, but a little longer, a red flower and a small, slender root. It grows round springs. Dried till it is like flour, and sprinkled in white wine, it stops strangury and checks looseness of the bowels. Rubbing with its juice mixed with oil causes perspiration. *Oenobrechis*

XCIX. My proposed task of discussing wonderful plants suggests that I also say a few words about those that are magical. For what plants are more wonderful than they? These were first brought to the notice of our part of the world by Pythagoras and Democritus, who followed as their authority the Magi. Pythagoras declares that water is congealed by the plants *coracesia* and *calicia*; ^a but I find no mention of them in other authorities, nor does Pythagoras tell us anything else about them. *Magical plants.*

C. The same authority gives the name of *minyas*, or *corinthia*, ^b to a plant of which, he says, the decocted juice, used as a fomentation, immediately heals the bites of serpents. He adds that if it is poured on the grass and a person happens to tread on it, or if by chance it is sprinkled on the body, inevitable death ensues; so absolutely devilish is the poison of this plant, except that it counteracts other poisons.

CI. The same Pythagoras calls *aproxis* a plant *Aproxis.* whose root catches fire at a distance like *naphtha*; I have spoken about it in my section on the marvels of the earth.^c He also informs us that the symptoms

Medea? The *Minyae* were the companions of Jason; Corinth was the scene of Euripides' *Medea*.

^c See Book II. § 235.

PLINY : NATURAL HISTORY

- morbi humano corpori inciderint florente brassica,¹
 quamvis sanatos admonitionem eorum sentire, quotiens
 ea herba floreat, qui ² florente acciderint aut frumento
 159 aut cicuta aut viola similem conditionem habere. nec
 me fallit hoc volumen eius a quibusdam Cleemporo
 medico adscribi, verum Pythagorae pertinax fama an-
 tiquitasque vindicant. et id ipsum auctoritatem volu-
 minum adfert, si quis alius curae suae opus illo viro
 dignum iudicavit, quod fecisse Cleemporum, cum alia
 suo et nomine ederet, quis credat ?
- 160 CII. Democriti certe chirocmeta esse constat. at ³
 in his ille post Pythagoram Magorum studiosissimus
 quanto portentosiora tradit ! aglaophotim ⁴ herbam,
 quae admiratione hominum propter eximium colorem
 acceperit nomen, in marmoribus Arabiae nascentem
 Persico latere, qua de causa et marmaritim vocari.
 hac Magos uti, cum velint deos evocare.
- 161 Achaemenida colore electri sine folio nasci in ⁵
 Taradastilis Indiae, qua ⁶ pota in vino noxii per
 cruciatus confiteantur omnia per varias numinum

¹ brassica *Dellefsen, Mayhoff, codd.* : *aproxi vulg.*

² quotiens ea herba floreat, qui *Dellefsen* : quotiens floreat ;
 item si *Mayhoff* : quotiens solum *codd.*

³ at *om. d, fortasse recte.*

⁴ *Ante aglaophotim add. ut Mayhoff.*

⁵ nasci in *Dellefsen* : nascentem *Mayhoff* : nascens in *codd.*

⁶ qua *Dellefsen, Mayhoff* : quae *codd.* : cuius radice in
 pastillos digesta in dieque *vulg.*

^a The vulgate reading *aproxi* has no MS. authority, although X has *approxica*, but I feel that *aproxi* makes the better sense, and that *brassica* is a blunder.

of diseases which have attacked the human body when the cabbage ^a is in blossom, even though the patient has been cured, are felt to recur every time this plant ^b blossoms; he speaks of a similar peculiarity following diseases which have attacked when wheat, hemlock or the violet is in flower. I am aware that this book of his is ascribed by some to the physician Cleemporus, but an ancient and unbroken tradition assigns it to Pythagoras. Were the author anyone else, the mere fact that he has considered the result of his labour worthy of that great thinker enhances the authority of a book; but who would believe that Cleemporus acted so, since he published other works, and that under his own name?

CII. That Democritus was the author of the book called *Chirocmeta* is a well-attested tradition; yet ^c in it this famous scientist, the keenest student next to Pythagoras of the Magi, has told us of far more marvellous phenomena. For example, the plant *aglaophotis*,^d which received its name from men's *Aglaophotis.* wonder at its magnificent colour, being native, he says, to the marble quarries of Arabia on the Persian side, is therefore also called *marmaritis*. The Magi use it, he tells us, when they wish to call up gods.

The *achaemenis*, he reports, is of an amber colour, *Achaemenis.* leafless and found among the Taradastili of India; criminals, according to him, if they drink it in wine, confess all their misdeeds because they suffer tor-

^b It is difficult to decide whether this refers to *brassica* or to the *aproxis*. If to the former, this sentence has nothing whatever to do with the *aproxis*; if to the latter, the reason for the introduction of *brassica* is very obscure.

^c The *at* of nearly all MSS. mars the logic of this passage, and may be an instance of dittography from *constat*.

^d "Bright light," perhaps peony (*Paeonia officinalis*).

PLINY : NATURAL HISTORY

imaginationes, eandem hippophobada appellat, quoniam equae praecipue caveant eam.

- 162 Theombrotion xxx schoenis a Choaspe nasci, pavonum¹ picturis similem, odore eximio. hanc a regibus Persarum bibi contra omnia corporum incommoda instabilitatemque mentis et iustitiae,² eandem semnion a potentiae maiestate appellari.

Aliam deinde adamantida Armeniae Cappadociaeque alumnam. hac admota leones resupinari cum hiatu lasso. nominis causam esse quod conteri nequeat.

Arianida in Arianis gigni igneam colore, colligi, cum sol in leone sit. huius tactu peruncta oleo ligna accendi.

- 163 Therionarca in Cappadocia et Mysia nascente omnes feras torpescere nec nisi hyaenae urina adspersa recreari.

Aethiopida in Meroe nasci, ob id et meroida appellari, folio lactucae, hydropicis utilissimam e mulso potam.

¹ pavonum *Sillig, Dellefsen* : pavonis cum aliquot *codd. Mayhoff*.

² instabilitatemque mentis et iustitiae] inmota stabilitate mentis et iustitiae *Dellefsen* : incommoda; a stabilitate mentis et iustitiae *Mayhoff*, qui mentis et iustitiae *uncis seclurit* : instabilitatemque mentis *vulg.* : fortasse ad stabilitatem mentis et iustitiae : *varia codd.*

^a I take the "tortures" to be those caused by the haunting phantoms, as is suggested by the repeated *per* of *per cruciatus* and *per varias numinum imaginationes*, though the phrases are separated. But by *per cruciatus* Pliny may simply mean: "while they are being tortured as part of their punishment." So *Mayhoff* (Appendix) : *noxii inter cruciatus*.

^b "Food for the gods."

^c The *schoenus* was a measure of forty stades in length, about five miles.

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tures ^a from divers phantoms of spirits that haunt them; he also called it hippophobas, because mares have an intense aversion to it.

The theombroton ^b grows, says Democritus, thirty schoeni ^c from the Choaspes, being like a peacock in its colourings and of a very fine scent. He goes on to state that the kings of Persia take it in drink for all bodily disorders and for instability of intellect and of the sense of justice, ^d and that it is also called semnion ^e from the majesty of its power. *Theombroton.*

Democritus goes on to mention another plant, the adamantis, ^f a native of Armenia and Cappadocia; if it be placed, he says, near lions they lie on their backs and wearily yawn. The reason for the name is because the plant cannot be crushed. *Adamantis and other plants.*

Ariana is given as the home of the arianis, a plant of the colour of fire. It is gathered, he says, when the sun is in Leo, and pieces of wood soaked in oil catch fire at its touch.

Democritus says that the therionarca, ^g growing in Cappadocia and Mysia, makes all wild beasts become torpid, and that they cannot be revived unless sprinkled with the urine of a hyaena.

He tells us that the aethiopsis grows in Meroë, that therefore its other name is the meroïs, that it has the leaf of the lettuce and that it is very beneficial for dropsy if taken in honey wine.

^a The text here is uncertain. Detlefsen's conjecture, yielding a good sense, would mean: "to keep unshaken their intellectual powers and sense of justice"; Mayhoff's: "bodily disorders; from its reliability, and from the majesty, etc."

^e The word *semnion* means "the august plant."

^f "Unbreakable."

^g "That benumbs beasts."

PLINY : NATURAL HISTORY

Ophiusam in Elephantine eiusdem Aethiopiae, lividam difficilemque aspectu, qua pota terrorem minasque serpentium obversari ita ut mortem sibi eo metu consciscant, ob id cogi sacrilegos illam bibere, adversari ei palmeum vinum.

- 164 Thalassaeglen circa Indum amnem inveniri, quae ob id nomine alio potamaugis appellatur, hac pota lymphari homines obversantibus miraculis.

Theangelida in Libano Syriae, Dicte Cretae montibus et Babylone et Susis Persidis nasci, qua pota Magi divinent.

Gelotophyllida in Bactris et circa Borysthenen. haec si bibatur cum murra et vino, varias obversari species ridendique finem non fieri nisi potis nucleis pineae nucis cum pipere et melle in vino palmeo.

- 165 Hestiaterida a convictu nominari in Perside, quoniam hilarentur illa, eandem protomediam, qua primatum apud reges obtineant, casigneten quoniam secum ipsa nascatur, nec cum aliis ullis herbis, eandem dionysonymphadem, quoniam vino mire conveniat.

Helianthes vocat in Themiscyrena regione et Ciliciae montibus maritimis, folio myrti. hac cum adipe leonino decocta, addito croco et palmeo vino,

^a "Snake plant."

^b "Sea brightness."

^c "River gleam."

^d "Messenger from god" (?).

^e "Leaves of laughter."

^f "Plant of the family hearth."

^g "Headship of the Medes."

^h "Sister plant." Authorities differ here; some take all four names to refer to the same plant, others think that there are two, the second being the *casignete*.

ⁱ "Bride of Dionysus."

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The ophiusa ^a he speaks of as growing in Elephantine, which also belongs to Ethiopia, a plant livid in colour and revolting to look at, to take which in drink causes such terrible visions of threatening serpents that fear of them causes suicide; wherefore those guilty of saerilege are forced to drink it. An antidote is palm wine. *Ophiusa.*

The thalassaegle ^b we are told is found along the river Indus, and is therefore also called potamaugis, ^c to drink which causes men to rave, while weird visions beset their minds. *Thalassaegle.*

The theangelis, ^d Democritus says, grows on Mount Lebanon in Syria, on Mount Diete in Crete, and in Babylon and Susa in Persia; the Magi take it in drink to gain power to divine. *Theangelis.*

The gelotophyllis ^e grows in Baetria and along the Borysthenes. If this be taken in myrrh and wine all kinds of phantoms beset the mind, causing laughter which persists until the kernels of pine-nuts are taken with pepper and honey in palm wine. *Gelotophyllis.*

According to the same authority the hestiatensis ^f is a Persian plant, so named from its promotion of good fellowship, because it makes the company gay; it is also called protomedia, ^g from its use to gain the highest position at Court; casignete, ^h because it grows only in company with its own species, and not with any other plants; also dionysonymphas, ⁱ because it goes wonderfully well with wine. *Hestiatensis.*

Helianthes ^j is the name given to a plant with leaves like those of the myrtle, growing in the district of Themiscyra and on the mountains along the coasts of Cilicia. A decoction of it in lion's fat, with saffron and palm wine added, is used, he says, as an ointment *Helianthes.*

^j "Sun flower."

PLINY : NATURAL HISTORY

perungui Magos et Persarum reges ut fiat corpus aspectu iucundum, ideo eandem heliocallida nominari.

166 Hermesias ab eodem vocatur ad liberos generandos pulchros bonosque, non herba sed conpositio e nucleis pineae nucis tritis cum melle, murra, croco, vino palmeo, postea admixto theombrotio et lacte. bibere generaturos iubet et a conceptu et ¹ puerperas partum nutrientes, ita fieri † excellentes animo et forma atque bonos. †² atque harum omnium magica quoque vocabula ponit.

167 Adiecit his Apollodorus adsectator eius herbam aeschynomenen, quoniam adpropinquante manu folia contraheret, aliam crocida, cuius tactu phalangia morerentur, Crateuas onothurin,³ cuius aspersu e vino feritas omnium animalium mitigaretur, anacampserotem celeber arte grammatica paulo ante, cuius omnino tactu redirent amores vel cum odio depositi. et abunde sit hactenus attigisse insignia Magorum in herbis alia de his aptiore dicturis loco.

¹ et coni. Dal. : om. Detlefsen, Mayhoff, codd.

² excellentes animo et forma atque bonos X, vulg. ante Sillig : excellentes animi et formae bonis Detlefsen, Mayhoff : excellentis d Sillig : an excellentis animi et formae bonos ?

³ onothurin coni. Ianus collato Dioscoride IV. 117 (Wellmann) : ocnotherin Detlefsen : ocnotheridem vulg. : varia codd.

^a "Beauty of the Sun."

^b The text is very uncertain. Perhaps the original was *excellentis animi et formae, bonos* or *bonis* being added by some scribe who remembered the opening words of this section. See *Additional Notes*, p. 483.

^c The "shy" plant.

^d Probably Apion (circa A.D. 38).

^e "Restorer of lost love."

by the Magi and the Persian kings to give to the body a pleasing appearance, and therefore it is also called *heliocallis*.^a

The same authority gives the name *hermesias* to *Hermesias*, a means of procreating children who shall be handsome and good. It is not a plant, but a compound of ground kernels of pine nuts with honey, myrrh, saffron and palm wine, with the later addition of theombrotion and milk. He prescribes a draught of it to those who are about to become parents, after conception, and to nursing mothers. This, he says, results in children exceeding fair in mind and body, as well as good.^b Of all these plants he adds also the magical names.

Apollodorus, a follower of Democritus, added to these plants one that he called *aeschynomene*,^c *Aeschynomene*, because on the approach of a hand it contracts its leaves, and another called *crocis*, whose touch, he declares, kills poisonous spiders; Crateuas added the *onothuris*, by the sprinkling of which in wine he asserted that the fierceness of all animals is calmed; and a little while ago a well-known grammarian^d added *anacampseros*,^e by the mere touch of which, he said, love was restored, even though the lovers parted in hatred. These few remarks are quite enough to have been said for the present about the wonderful powers ascribed to plants by the Magi, as I shall speak of them again on a more fitting occasion.^f

^f In this chapter Pliny uses indirect speech, as if to disclaim responsibility for the truth of the account he is giving. It is awkward for a translator to represent this in a modern language, and it might have been better to prefix to the chapter a sentence to the effect that what follows is given on the authority of others.

PLINY : NATURAL HISTORY

168 CIII. Eriphiam multi prodidere. scarabaeum haec in avena habet sursum deorsum decurrentem cum sono haedi, unde et nomen accepit. hac ad vocem nihil praestantius esse tradunt.

CIV. Herba lanaria ovibus ieiunis data lactis abundantiam facit. aequae nota lactoris vulgo est, plena lactis quod degustatum vomitiones concitat. eandem hanc aliqui esse dicunt, alii similem illi quam militarem vocant. quoniam vulnus ferro factum nullum non intra dies quinque sanat ex oleo inposita.

169 CV. Celebratur autem et a Graecis stratiotes, sed ea in Aegypto tantum et inundatione Nili nascitur, aizoo similis, nisi maiora haberet folia. refrigerat mire et vulnera sanat ex aceto inlita, item ignes sacros et suppurationes. sanguinem quoque qui defluit a renibus pota cum ture masculo mirifice sistit.

170 CVI. Herba in capite statuae nata collecta in vestis alicuius pannum et inligata lino¹ rufo capitis dolores adposita confestim sedare traditur.

CVII. Herba quaecumque e rivis aut fluminibus ante solis ortum collecta ita ut nemo colligentem videat adalligata laevo brachio ita ut aeger quid sit illud ignoret tertianas arcere traditur.

CVIII. Lingua herba nascitur circa fontes. radix eius combusta et trita cum adipe suis—adiciunt ut

¹ lino *Sillig, Mayhoff*: in lino *codd.*

CIII. Many have described the eriphia. It has a beetle running up and down inside its stem, making a noise like that of a kid; hence also comes its name.^a It is said that nothing is better than this plant for improving the voice. *The eriphia.*

CIV. The wool-plant given to fasting sheep produces an abundance of milk. Equally well known generally is the lactoris, a plant full of milk a taste of which produces vomitings. Some say that this is the same plant (others say one like it) as that called the military plant, because there is no wound made by iron which is not cured within five days by an application of it in oil. *The wool-plant and lactoris.*

CV. Another plant highly popular among the Greeks is the stratiotes, but it grows only in Egypt when the Nile is in flood; it is like the aizoüm, only its leaves are larger. It is wonderfully cooling, and applied in vinegar heals wounds, as well as erysipelas and suppurations. It also arrests hæmorrhage of the kidneys in a marvellous way if taken in drink with male frankincense. *The stratiotes.*

CVI. A plant that grows on the head of a statue, gathered into a piece taken from some garment and tied on with red thread, is said to relieve headache immediately on being applied. *Various plants.*

CVII. Any plant whatsoever, gathered before sun-rise out of streams or rivers, provided that nobody sees the gatherer, if it is tied as an amulet to the left arm, is said to keep away tertian agues, provided that the patient does not know what is going on.

CVIII. The plant called "tongue" grows around "Tongue" springs. Its root, burnt and pounded with pig's

^a The "kid-plant."

PLINY : NATURAL HISTORY

nigra sit et sterilis—alopecias emendat unguentum in sole.

171 CIX. Cribro in limite abiecto herbae intus extantes decerptae adalligataeque gravidis partus adcelerant.

CX. Herba quae gignitur super fimeta ruris contra anginas efficacissime pollet ex aqua pota.

CXI. Herba iuxta quam canes urinam fundunt evulsa ne ferro attingatur luxatis celerrime medetur.

172 CXII. Rumpotinum arborem demonstravimus inter arbusta. iuxta hanc viduam vite nascitur herba quam Galli rodarum vocant. caulem habet virgae ficulneae modo geniculatum, folia urticae in medio exalbida, eadem procedente tempore tota rubentia, florem argenteum, praecipua contra tumores fervoresque et collectiones cum axungia vetere tusa ita ut ferro non attingatur. qui perunctus est despuat ad suam dexteram terna. efficacius remedium esse aiunt, si tres trium nationum homines perungant dextrorsus.

173 CXIII. Herba impia vocatur incana, roris marini aspectu, thyrsi modo vestita atque capitata. inde alii ramuli exsurgunt sua capitula gerentes, ob id impiam appellavere, quoniam liberi super parentem excellant. alii potius ita appellatam, quoniam
174 nullum animal eam attingat, existimavere. haec

^a Book XIV, § 12.

fat—they add that the pig should be black and barren—cures mange if the patients use it as embrocation in the sunshine.

CIX. If the plants that sprout up inside a sieve thrown away on a cross-path are plucked and used as an amulet, they hasten the delivery of lying-in women.

CX. A plant growing on the top of country dung-heaps is, if taken in water, a very efficacious remedy for quinsies.

CXI. A plant near which dogs make water, if uprooted without the touch of iron, is a very quick remedy for dislocations.

CXII. In my account of vine-supporting trees the tree called rumpotinus received a notice.^a When it does not support a vine there grows near it a plant called by the Gauls rodarum. It has a stem with knots, like a twig of a fig-tree; the leaves are those of a nettle, whitish in the centre, but in course of time becoming red all over; the blossom is silvery. If the leaves are beaten up with old axle-grease, without being touched by iron, they are a sovereign remedy for tumours, inflammations and gatherings. After being rubbed with it the patient spits to his right three times. They say that the remedy is more efficacious if three persons of different nationalities do the rubbing from left to right.

CXIII. What is called the unfilial plant is of a hoary white, in appearance like rosemary, clothed with leaves like a thyrsus and terminating in a head, from which sprout up little branches that also terminate each in a little head of its own. This is why the plant has been called unfilial, because the children out-top their parent. Others have thought that it has been so named rather because no animal

The unfilial plant.

inter duos lapides trita fervet praecipuo adversus anginas suco, lacte et vino admixto. mirum traditur numquam eo morbo temptari qui gustaverint. itaque et subus dari, quaeque medicamentum id noluerint haurire eo morbo interimi. sunt qui avium nidis inseri aliquid ex ea putent atque ita non strangulari pullos avidius devorantes.

175 CXIV. Veneris pectinem appellant a similitudine pectinum, cuius radix cum malva tusa omnia corpori infixae extrahit.

CXV. Veterno liberat quae exedum vocatur. notia herba coriariorum officinis familiaris¹ est aliis aliisque nominibus, efficacissimamque adversus scorpionem esse potam e vino aut posca reperio.

176 CXVI. Philanthropon herbam Graeci appellant nasute, quoniam vestibus adhaerescat. ex hac corona inposita capitis dolores sedat. nam quae canaria appellatur lappa, cum plantagine et milifolio trita ex vino carcinomata sanat, ternis diebus² soluta. medetur et subus effossa sine ferro addita in colluviem poturis vel ex lacte ac vino. quidam adiciunt effodientem dicere oportere : haec est herba argemon quam Minerva repperit subus remedium quae de illa gustaverint.

177 CXVII. Tordylon alii semen silis³ esse dixerunt, alii herbam per se, quam et syreon vocaverunt.

¹ familiaris *Ian.*, *Detlefsen*, *Mayhoff* : eam hilaris aut ea villaris *codd.*

² *Mayhoff* (Appendix) non *add. vel a ante* ternis.

³ silis *tres codd.*, *Mayhoff* : sesilis *Detlefsen*.

^a *Impius* has also the meaning "impious."

^b "Lover of man."

^c Or "sesilis" (*Detlefsen*).

touches it.^a Crushed between two stones this plant gives out an effervescing juice, which added to milk and wine is a sovereign remedy for quinsies. Attributed to it is this wonderful property; that they who have tasted it are never attacked by quinsy. Accordingly, they say, it is also given to pigs, and those refusing to swallow the medicine are cut off by that complaint. There are some who think that a little of it is woven into birds' nests, and that this is why chicks are not choked by gulping their food too greedily.

CXIV. Venus' comb is so named from its resemblance to combs; its root pounded with mallows extracts all foreign bodies lodged in the flesh. *Venus' comb.*

CXV. The plant called exedum dispels lethargy. *Eredum and notia.* The plant notia is well known under various names in the curriers' work-shops; I find that taken in wine or vinegar and water it is most efficacious for the sting of scorpions.

CXVI. Philanthropos^b is a name which the Greeks *Philanthropos.* in witty sarcasm give to a plant because it sticks to the clothes. A chaplet made out of it and placed on the head relieves headaches. But what is called dog-bur, *Dog-bur.* if beaten up in wine with plantain and millefolium, heals cancerous sores, the plaster being taken off every third day. It also cures pigs, if dug up without iron; it is added to their swill before they go to feed, or else given them in milk and wine. Some add that as he is getting it up the digger should say: "This is the plant argemon, which Minerva discovered to be a remedy for the pigs that shall taste of it."

CXVII. Some have said that tordylon is the seed *Tordylon.* of sili,^c others that it is itself a plant, which they have also called syreon. I find nothing recorded of

neque aliud de ea proditum invenio quam in montibus nasci, combustam potu ciere menses et pectoris excreationes, efficaciore etiamnum radice, suco eius ternis obolis hausto renes sanari, addi radicem eius et in malagmata.

- 178 CXVIII. Gramen ipsum inter herbas vulgatissimum geniculatis serpit internodiis crebroque ab his et ex cacumine novas radices spargit. folia eius in reliquo orbe in exilitatem fastigantur, in Parnaso tantum hederacia specie densius quam usquam fruticant, flore odorato candidoque. iumentis herba non alia gratior, sive viridis sive in fenum¹ siccata,²
- 179 cum detur adpersa aqua, sucumque eius in Parnaso excipi tradunt propter ubertatem. dulcis hic est. in vicem eius in reliqua parte terrarum succedit decoctum ad vulnera conglutinanda, quod et ipsa herba tusa praestat tueturque ab inflammationibus plagas.³ adicitur decocto vinum ac mel, ab aliquis et turis, piperis, murrae tertiae portiones, rursusque coquitur in aereo vase ad dentium dolores, epiphoras.
- 180 radix decocta in vino torminibus medetur et urinae difficultatibus ulceribusque vesicae, calculos frangit. semen vehementius urinam inpellit, alvum vomitionesque sistit. privatim autem draconum morsibus auxiliatur. sunt qui genicula novem vel unius vel e duabus tribusve herbis ad hunc articulorum numerum involvi lana sucida nigra iubeant ad remedia strumae

¹ fenum *coni. ego et Dalec. : feno codd. et editores plerique.*

² siccata *duo codd., Detlefsen : siccatae duo codd. : siccata et coni. Mayhoff.*

³ plagas *E(?) Ian., Detlefsen, Mayhoff : praeligata Sillig : placat aut pacat ceteri codd.*

^a For this intensifying *ipse*, cf. § 188 *ipsa claritas*, "the peculiar glory."

it except that it grows on mountains, that burnt and taken in drink it promotes menstruation and expectoration, the root being even more efficacious, that its juice, swallowed in doses of three oboli, cures disorders of the kidneys, and that its root is also an ingredient of emollient plasters.

CXVIII. Grass, itself^a the very commonest of plants, trails its knotted blades along the ground, and from them and out of the head sprout many new roots. Its leaves in the rest of the world grow to a fine point, and only on Mount Parnassus sprout leaves thicker together than anywhere else, of the appearance of ivy, and with a white, scented flower. To draught-cattle no other plant is more attractive, whether fresh, or dried into hay and sprinkled with water when it is given them to eat. Its juice too, which is sweet, is said to be collected on Parnassus because of its richness. Over the rest of the world a decoction is used in its place to close cuts; the crushed plant by itself has the same effect and also prevents wounds from becoming inflamed. To the decoction are added wine and honey, by some, equal parts also of frankincense, pepper and myrrh, and the whole is again boiled in a bronze vessel to make a remedy for tooth-ache and eye-fluxes. A decoction of the root in wine cures colic, strangury and sores of the bladder, breaking up stone. The seed causes a stronger flow of urine, and checks looseness of the bowels and vomiting. It is also specific for the bites of the draco.^b Some prescribe nine knots either from one plant or from two or three to make up that number of joints, rolled up in black wool with the grease still in it, as a remedy for scrofulous sores and

Grass and its various kinds.

^b Probably any serpent of a large size.

181 panorumve. ieiunum esse debere qui colligat, sic abire¹ in domum absentis cui medeatur super-
venientique ter dicere ieiuno ieiunum medicamentum dare, atque ita adalligare triduoque id facere. quod e graminum genere septem internodia habet efficacissime capiti contra dolores adalligatur. quidam propter vesicae cruciatus decoctum ex vino gramen ad dimidias a balineis bibi iubent.

182 CXIX. Sunt qui et aculeatum gramen vocent trium generum. cum in cacumine aculei sunt plurimum quini, dactylon appellant. hos convolutos naribus inserunt extrahuntque sanguinis ciendi gratia. altero, quod est aizoo simile, ad paronychia et pterygia unguium et, cum caro unguibus increvit, utuntur cum axungia, ideo dactylon appellantes, quia
183 digitis medeatur. tertium genus dactyli, sed tenuis, nascitur in parietinis aut tegulis. huic caustica vis est. sistit ulcera quae serpunt. gramen capiti circumdatum sanguinis e naribus fluctiones sistit. camelos necare traditur in Babylonis regione id quod iuxta vias nascitur.

184 CXX. Nec feno Graeco minor auctoritas, quod telin vocant, alii carphos, aliqui buceras, alii aegoceras, quoniam corniculis semen est simile, nos siliciam. quomodo sereretur docuimus suo loco. vis eius siccare, mollire, dissolvere. sucus decocti feminarum pluribus malis subvenit, sive duritia sive

¹ sic abire *Detlefsen* : ita ire cum uno cod. *Mayhoff* : varia codd.

^a " Ox horn."

^b " Goat's horn."

^c See XVIII. § 140.

superficial abscesses. The person gathering it, they add, ought to be fasting, and in this state he should proceed to the house of the patient while he is away, and on his appearance say three times: "Fasting I give a cure to a fasting patient," and so fasten the nine joints as an amulet. This is to be done on three days running. The kind of grass that has seven spaces between knots makes a very effective amulet for headache. For severe pains in the bladder some authorities prescribe a decoction of grass in wine, boiled down to one half, to be drunk after the bath.

CXIX. There are some who speak of three kinds of pointed grass. When on each head there are at most five points they call it "finger grass." These points plaited together they insert into the nostrils and draw them out again to cause bleeding. The second kind, which is like the aizoüm, they use with axle-grease for whitlows, hangnails, and when flesh has grown over the nails, calling it "finger grass," because it heals the fingers. There is a third kind of finger grass, but it is slender, growing on ruins or tiles. Its properties are caustic, and it checks creeping ulcers. Grass put round the head checks copious bleeding at the nose. It is said that in the district of Babylon camels are killed by the grass that grows by the side of the roads.

CXX. Held in no less honour is fenugreek, which is *Fenugreek*. also called telis, carphos, buceras,^a and aegoceras,^b because its seed is shaped like small horns; the Roman name for it is silicia. The method of sowing it we have described in its proper place.^c Its properties are to dry, to soften and to dissolve. The juice of the decoction is of help in several ailments of women: whether it is hardness, swelling or con-

tumor sive contractio sit vulvae, foveantur, insidunt.
 infusum quoque prodest. furfures in facie extenuat.
 185 spleni addito nitro decoctum et inpositum medetur,
 item ex aceto. sic et iocineri decoctum. Diocles
 difficile parientibus semen eius dedit acetabuli
 mensura tritum in novem cyathis sapae ut tertias
 partes biberent, dein calida lavarentur, et in balneo
 sudantibus dimidium ex relicto iterum dedit, mox a
 186 balneo relicum, pro summo auxilio. farinam feni
 cum hordeo aut lini semine decoctam aqua mulsa
 contra vulvae cruciatus obiecit idem inposuitque imo
 ventri. lepras, lentigines sulphuris pari portione
 mixta farinae curavit, nitro ante praeparata cute,
 saepius die inlinens perunguique prohibens. Theo-
 dorus feno miscuit quartam partem purgati nasturtii
 187 acerrimo aceto ad lepras. Timon semen feni
 acetabuli dimidii mensura cum sapae et aquae novem
 cyathis ad menses ciendos dedit potu, nec dubitatur
 quin decoctum eius utilissimum sit vulvis inter-
 aneisque exulceratis, sicuti semen articulis atque
 praecordiis. si vero cum malva decoquatur postea
 addito mulso, potus ante cetera vulvis interaneisque

traction of the uterus, the treatment is fomentation and the sitz bath. Injections are also of value. It checks scaly eruptions on the face. Splenic troubles are cured by a local application of a decoction to which soda has been added; the decoction may also be made with vinegar. Such a decoction is also good for the liver. In cases of difficult child-birth Diocles prescribed an acetabulum of its crushed seed in nine cyathi of concentrated must; three-quarters were to be drunk, then the patients were to bathe in hot water, next, as they were sweating in the bath, he gave further half of what remained, and then the rest after the bath. In this way the maximum benefit was obtained. A decoction in hydromel of fenugreek meal with barley or linseed was used by the same physician to make a pessary for violent pains in the uterus; he combined this treatment with a plaster at the base of the abdomen. He treated leprous sores and freckles with equal parts of sulphur and fenugreek meal, the skin having been prepared beforehand with soda, applying the mixture several times a day and not allowing the patient to be rubbed with it. Theodorus treated leprous sores with fenugreek and one-fourth part of cleaned cress steeped in the strongest vinegar. Timon prescribed as an emmenagogue a draught of half an acetabulum of fenugreek seed with nine cyathi of concentrated must and water, and there is no doubt that a decoction of it is very good for ulcerated uterus and intestines, as the seed is for the joints and hypochondria. If, however, it is boiled down with mallows, and honey wine be afterwards added, a draught is praised as a pre-eminent remedy for troubles of the uterus and

laudatur, quippe cum vapor quoque decocti plurimum
 prosit, alarumque etiam graviolentiam decoctum feni¹
 emendat. farina porrigines capitis furfuresque cum
 188 vino et nitro celeriter tollit. in hydromelite autem
 decocta addita axungia genitalibus medetur, item
 pano, parotidi, podagrae, chiragrae, articulis carni-
 busque quae recedunt ab ossibus, aceto vero subacta
 luxatis. inlinitur et lieni decocta in aceto et melle
 tantum. carcinomata subacta ex vino purgat, mox
 addito melle persanat. sumitur et sorbitio ex farina
 ad pectus exulceratum longamque tussim. diu²
 decoquitur donec amaritudo desinat, postea mel
 additur. Nunc ipsa claritas herbarum dicetur.

¹ *Hic semen VEX Mayhoff: om. d T Hard., Detlefsen.*

² *Om. diu Mayhoff.*

intestines, seeing that the steam also from the decoction is of the highest value; a decoction of fenugreek, too, removes offensive smells of the armpits. The meal with wine and soda quickly removes scurf and dandruff on the head. A decoction too of the meal in hydromel, mixed with axle-grease, cures complaints of the genitals, likewise superficial abscesses, parotid tumours, gouty affections of feet or hands, affections of the joints and the receding of flesh from the bones; but the meal is kneaded in vinegar for dislocations. A decoction of the meal in vinegar and honey only is used as a liniment for splenic trouble. Kneaded in wine it cleanses cancerous sores; if honey is afterwards added a complete cure is effected. A gruel also of this meal is taken for ulceration of the chest and for chronic cough. It is boiled down for a long time until the bitterness disappears; afterwards honey is added. I shall now proceed to the peculiar glory of plants.

BOOK XXV

LIBER XXV

I. Ipsa quae nunc dicetur herbarum claritas, medicinae tantum gignente eas Tellure, in admirationem curae priscorum diligentiaeque animum agit. nihil ergo intemptatum inexpertumque illis fuit, nihil deinde occultatum quodque non prodesse posteris vellent. at nos elaborata his abscondere ac
2 suppressere cupimus et fraudare vitam etiam alienis bonis. ita certe recondunt qui pauca aliqua novere invidentes aliis, et neminem docere in auctoritatem scientiae est. tantum ab excogitandis novis ac iuvanda vita mores absunt, summumque opus ingeniorum diu iam hoc fuit ut intra unumquemque recte facta veterum perirent. at, Hercules, singula quosdam inventa deorum numero addidere, quorum¹ utique vitam clariorem fecere cognominibus herbarum, tam benigne gratiam memoria referente.
3 non aequè haec cura eorum mira est² in his quae satu blandiuntur aut cibo invitant, culmina quoque montium invia et solitudines abditas omnesque terrae

¹ quorum *ego* : hominum *Dellefsen cum Pintiano* : omnium *Mayhoff cum fere omnibus codd.*

² mira est *Mayhoff* : mira, si *Dellefsen, codd.* : mira esset *vulg.*

BOOK XXV

I. This peculiar glory of plants which I am now going to speak of, Mother Earth producing them sometimes for medicinal purposes only, rouses in one's mind admiration for the care and industry of the men of old; there was nothing left untried or unattempted by them, and furthermore nothing kept secret, nothing which they wished to be of no benefit to posterity. But we moderns desire to hide and suppress the discoveries worked out by these investigators, and to cheat human life even of the good things that have been won by others. Yes indeed, those who have gained a little knowledge keep it in a grudging spirit secret to themselves, and to teach nobody else increases the prestige of their learning. So far has custom departed from fresh research and assistance to life; the supreme task of our great minds has long been to keep within individual memory the successes of the ancients, so allowing them to be forgotten. But, heaven knows, there are some whom a single discovery has added to the number of the gods, whose life on earth at any rate has been made more glorious by their names being given to plants, so kind the thanks of a mindful posterity. This careful research of theirs is less wonderful when rewarded by plants of fascinating growth or attractive as food; but they have scoured also trackless mountain heights, unexplored deserts and all the bowels of the earth, finding out the power

*Of plants
used
specially
for medi-
cine.*

fibras scrutati invenere quid quaeque radix polleret, ad quos usus herbarum fila pertinerent, etiam quadripedum pabulo intacta ad salutis usus vertentes.

4 II. Minus hoc quam par erat nostri celebravere omnium utilitatum et virtutum rapacissimi, primusque et diu solus idem ille M. Cato, omnium bonarum artium magister, paucis dumtaxat attigit, boum etiam medicina non omissa. post eum unus inlustrum temptavit Gaius Valgius eruditione spectatus imperfecto volumine ad divum Augustum, inchoata etiam praefatione religiosa ut omnibus malis humanis illius potissimum principis semper mederetur maiestas.

5 III. Antea condiderat solus apud nos, quod equidem inveniam, Pompeius Lenaeus Magni libertus, quo primum tempore hanc scientiam ad nostros pervenisse animo adverto. namque Mithridates, maximus sua aetate regum quem debellavit Pompeius, omnium ante se genitorum diligentissimus vitae fuisse argumentis praeterquam fama intellegi-
6 tur. uni ei excogitatum cotidie venenum bibere praesumptis remediis ut consuetudine ipsa innoxium fieret; primo inventa genera antidoti ex quibus unum etiam nomen eius retinet; illius inventum sanguinem anatum Ponticarum miscere antidotis, quoniam

^a Perhaps, "biology." But see *vita* again in §§ 7 and 22.

^b *Primo* dat. of the agent.

of every root and the uses to which can be put mere slim threads of vegetation, and turning to healthful purposes that which the very beasts refuse to touch as food.

II. This subject was less popular with our countrymen than it should have been considering their vast appetite for all things useful and good; the first student of it, and for a long time the only one, being that same Marcus Cato, the master of all excellent crafts, who merely touched briefly the subject, without neglecting even veterinary medicine. After him one only of our distinguished men has tried his hand at the subject, Gaius Valgius, an author of approved scholarship, who left unfinished a work dedicated to the late emperor Augustus, beginning also his preface with a devout prayer that his Imperial Highness should always, and above all others, be the healer of every human ill.

III. Before Valgius the only Roman who had written on this subject, as far as I can discover, was Pompeius Lenaeus, a freedman of Pompeius Magnus, in whose day, I find, scientific treatment of it first found a home among Roman students. For it was Mithridates, the greatest king of his time, whom Pompeius vanquished, that was, we know by evidence as well as by report, a more attentive investigator of life's problems^a than any of those born before him. By his unaided efforts he thought out the plan of drinking poison daily, after first taking remedies, in order that sheer custom might render it harmless; he was the first^b to discover the various antidotes, one of which is even known by his name; he also discovered the mixing with antidotes of the blood of Pontic ducks, because

*Roman
writers on
the subject*

Mithridates

veneno viverent ; ad illum Asclepiadis medendi arte clari volumina composita extant, cum sollicitatus ex urbe Roma praecepta pro se mitteret ; illum solum mortalium certum est xxii linguis locutum, nec e subiectis gentibus ullum hominem per interpretem
 7 appellatum ab eo annis lvi quibus regnavit. is ergo in reliqua ingenii magnitudine medicinae peculiariter curiosus et ab omnibus subiectis, qui fuere magna pars terrarum, singula exquirens scrinium commentationum harum et exemplaria effectusque in arcanis suis reliquit, Pompeius autem omni praeda regia potitus transferre ea sermone nostro libertum suum Lenaeum grammaticae artis iussit, vitaeque ita profuit non minus quam reipublicae victoria illa.

8 IV. Praeter hos Graeci auctores prodidere quos suis locis diximus, ex his Crateuas, Dionysius, Metrodorus ratione blandissima sed qua nihil paene aliud quam difficultas rei intellegatur. pinxere namque effigies herbarum atque ita subscripsere effectus. verum et pictura fallax est coloribus tam numerosis, praesertim in aemulationem naturae, multumque degenerat transcribentium fors varia.¹ praeterea parum est singulas earum aetates pingi, cum quadripertitis varietatibus anni faciem mutant.

¹ fors varia *codd.*, *Detlefsen* : socordia *Mayhoff* : sollertia *C. F. W. Müller*.

^a *Mayhoff's socordia* would give : "owing to the carelessness of the copyists" ; *Müller's sollertia* : "owing to the (misplaced, ill-timed) ingenuity of the copyists." But surely the reading of the MSS. gives a good sense, and accords perfectly with Pliny's "journallese" style of writing.

they lived on poison ; addressed to him were treatises, still extant, written by the famous physician Asclepiades, who when urgently invited to come from Rome sent instructions instead ; Mithridates alone of men is definitely known to have spoken twenty-two languages, and no man of his subject peoples was ever addressed by him through an interpreter during all the fifty-six years of his reign. He then, with his brilliant intellect and wide interests, was an especially diligent student of medicine, and collected detailed knowledge from all his subjects, who comprised a great part of the world, leaving among his private possessions a bookcase of these treatises with specimens and the properties of each. Pompeius however on getting possession of all the royal booty ordered his freedman Lenæus, a man of letters, to translate these into Latin. This great victory therefore was as beneficent to life as it was to the State.

IV. Besides these the subject has been treated by Greek writers, whom we have mentioned in their proper places ; of these, Crateuas, Dionysius and Metrodorus adopted a most attractive method, though one which makes clear little else except the difficulty of employing it. For they painted likenesses of the plants and then wrote under them their properties. But not only is a picture misleading when the colours are so many, particularly as the aim is to copy Nature, but besides this, much imperfection arises from the manifold hazards in the accuracy ^a of copyists. In addition, it is not enough for each plant to be painted at one period only of its life, since it alters its appearance with the fourfold changes of the year.

*Greek
writers on
this subject*

- 9 V. Quare ceteri sermone eas tradidere, aliqui ne effigie quidem indicata et nudis plerumque nominibus defuncti, quoniam satis videbatur potestates vimque demonstrare quaerere volentibus. nec est difficilis cognitio: nobis certe, exceptis admodum paucis, contigit reliquas contemplari scientia Antoni Castoris, cui summa auctoritas erat in ea arte nostro aevo, visendo hortulo eius in quo plurimas alebat centesimum annum aetatis excedens, nullum corporis malum expertus, ac ne aetate quidem memoria aut vigore concussis. neque aliud mirata magis antiquitas
- 10 reperietur. inventa iampridem ratio est praenuntians horas, non modo dies ac noctes, solis lunaeque defectuum. durat tamen tradita persuasio in magna parte vulgi veneficiis et herbis id cogi eamque unam feminarum scientiam praevalere. certe quid non repleverunt fabulis Colchis Medea aliaeque, in primis
- 11 Itala Circe dis etiam adscripta? unde arbitror natum ut Aeschylus e vetustissimis in poetica refertam Italiam herbarum potentia proderet, multique Circeios, ubi habitavit illa, magno argumento etiamnunc durante in Marsis, a filio eius orta gente, quoniam esse domitores serpentium constat. Homerus qui-

^a I think that there is some reason for the diminutive *hortulo*. It can hardly mean in the context "little garden," but seems to suggest that the *hortulus* was Castor's favourite hobby ("affectionate diminutive").

^b It is generally supposed that Pliny is referring to the pentameter quoted by Theophrastus *H.P.* IX 15, 1: *Τυρρηνὸν γενεάν, φαρμακοποιὸν ἔθνος*. In this passage Theophrastus mentions both Circe and Helen, as well as the wealth of Egypt in drugs.

V. For this reason the other writers have given verbal accounts only; some have not even given the shape of the plants, and for the most part have been content with bare names, since they thought it sufficient to point out the properties and nature of a plant to those willing to look for it. To gain this knowledge is no difficult matter; I at least have enjoyed the good fortune to examine all but a very few plants through the devotion to science of Antonius Castor, the highest botanical authority of our time; I used to visit his special ^a garden, in which he would rear a great number of specimens even when he passed his hundredth year, having suffered no bodily ailment and, in spite of his age, no loss of memory or physical vigour. Nothing else will be found that aroused greater wonder among the ancients than botany. Long ago was discovered a method of predicting eclipses of the sun and moon—not the day or night merely but the very hour. Yet there still exists among a great number of the common people an established conviction that these phenomena are due to the compelling power of charms and magic herbs, and that the science of them is the one outstanding province of women. At any rate tales everywhere are widely current about Medea of Colchis and other sorceresses, especially Circe of Italy, who has even been enrolled as a divinity. This is the reason, I think, why Aeschylus, one of the earliest poets, declared ^b that Italy abounds in potent herbs, and many have said the same of Circeii, where she lived. Strong confirmatory evidence exists even today in the fact that the Marsi, a tribe descended from Circe's son, are well-known snake-charmers. Homer indeed, the first ancestor

*Ancient
study of
botany.*

- dem primus doctrinarum et antiquitatis parens, multus alias in admiratione Circae, gloriam herbarum Aegypto tribuit, cum etiam tum quae rigatur¹ Aegyptus illa non esset, postea fluminis limo invecta.
- 12 herbas certe Aegyptias a regis uxore traditas Helenae suae plurimas narrat ac nobile illud nepenthes oblivionem tristitiae veniamque adferens et ab Helena utique omnibus mortalibus propinandum. primus autem omnium quos memoria novit Orpheus de herbis curiosius aliqua prodidit, post eum Musaeus et Hesiodus polium herbam in quantum mirati sint diximus, Orpheus et Hesiodus suffitiones commendavere. Homerus et alias nominatim herbas celebrat, quas suis locis dicemus. ab eo Pythagoras clarus sapientia primus volumen de effectum earum composuit, Apollini, Aesculapio et in totum dis immortalibus inventionem et origine adsignata; composuit et Democritus, ambo peragratis Persidis, Arabiae, Aethiopiae, Aegypti Magis, adeoque ad haec attonita antiquitas fuit ut adfirmaverit etiam
- 14 incredibilia dictu. Xanthus historiarum auctor in prima earum tradit occisum draconis catulum revocatum ad vitam a parente herba quam balim nominat, eademque Tylonem quem draco occiderat restitutum saluti. et Iuba in Arabia herba revocatum ad vitam hominem tradit. dixit Democritus, credidit Theophrastus esse herbam cuius contactu

¹ tum quae rigatur *codd. et Mayhoff*: nunc quae dicatur *coni. Dellefsen*.

^a See *Odyssey*, IV. 219-234.

^b *Veniam* is translated by Littré: "et de leur cause," by Bostock and Riley: "forgetfulness of the past."

^c See XXI. §§ 44 and 145.

^d Relying on these books.

of ancient learning, while expressing in several passages great admiration for Circe, gives the prize for herbs to Egypt, even though at that time the irrigated Egypt of today did not yet exist, for it was formed afterwards by the alluvial mud of the river. At any rate he says ^a that Egyptian herbs in great number were given by the wife of the king to the Helen of his tale, including that celebrated nepenthes, which brought forgetfulness and remission of sorrow, ^b to be administered especially by Helen to all mortals. But the first of all those known to tradition to publish anything about botany carefully was Orpheus; after him Musaeus and Hesiod, as we have said, ^c expressed great admiration for the plant called polium; Orpheus and Hesiod recommended fumigations. Homer mentions by name other plants also, which I shall speak of in their appropriate places. After him the celebrated philosopher Pythagoras was the first to compose a book on the properties of plants, assigning their original discovery to Apollo, Aesculapius and the immortal gods generally; Democritus also composed a similar work. Both of them visited the Magi of Persia, Arabia, Ethiopia and Egypt, and so amazed were the ancients at these books that they positively asserted ^d even unbelievable statements. Xanthus, who wrote books on history, relates in the first of them that a young snake, which had been killed, was restored to life by his father, who used a plant called by Xanthus balis, and that the same plant brought back to life one Tylo, whom the snake had killed. Juba too records that a man in Arabia was restored to life by means of a plant. Democritus said, and Theophrastus believed him, that there was a plant which, carried by

inlatae ab alite quam¹ retulimus exiliret cuneus a
 pastoribus arbori adactus. quae etiamsi fide carent,
 admirationem tamen implent coguntque confiteri
 15 multum esse veri² quod supersit. inde et plerosque
 ita video existimare nihil non herbarum vi effici posse,
 sed plurimarum vires esse incognitas, quorum in
 numero fuit Herophilus clarus medicina, a quo ferunt
 dictum quasdam fortassis etiam calcatas prodesse.
 observatum certe est inflammari³ vulnera ac morbos
 superventu eorum qui pedibus iter confecerint.

16 VI. Haec erat antiqua medicina quae tota migrabat
 in Graeciae linguas. sed quare non plures noscantur
 causa est quod eas agrestes litterarumque ignari
 experiuntur, ut qui soli inter illas vivant, praeterea
 securitas quaerendi obvia⁴ medicorum turba. multis
 etiam inventis desunt nomina, sicut illi quam retu-
 limus in frugum cura scimusque defossam in angulis
 segetis praestare ne qua ales intret. turpissima

¹ quam *vulg.*, *Mayhoff*: qua *Dettefsen*: fortasse de qua.

² veri quod *ego*: quod vero *codd. et edd.*

³ inflammari: *codd. et edd.*: vel sanari *coni. Mayhoff*:
 iam sanari *vel minus inflammari coni. Warmington.*

⁴ obvia *Mayhoff*: obvia in *Dettefsen*: obviam *V.*

^a See X. § 40.

^b It has been observed (e.g. by *Mayhoff*, who says *contra argumenti rationem, ut videtur*) that this sentence does not fit in with its context. After *prodesse* a sentence is expected to the effect that a patient has become better after treading on a certain plant (or plants). Instead of this we get a statement that a patient has grown worse on the arrival of visitors who have travelled on foot. As it may be just another example of *Pliny's* slipshod way of reasoning, the sentence has been left as it is in the *MSS.*, but there is much to be said for *Mayhoff's* "even cured." What perhaps *Pliny* ought to have said is *minus inflammari superventu vulnera*: "on arrival the wounds or illnesses are better of those who have made a journey on

the bird I have mentioned,^a forced out by its touch a wedge driven into a tree by shepherds. Although these tales are incredible, yet they fill us with wonder, and force us to admit that there is still much truth in them. Hence too I find that most authorities hold that there is nothing which cannot be achieved by the power of plants, but that the properties of most are still unknown. Among these thinkers was Herophilus, famous in medicine, who is reported to have said that certain plants are perhaps beneficial even when merely trodden on. It has been observed at any rate that wounds and diseases get worse^b on the arrival of people who have made a journey on foot.

VI. Such was the condition of medicine in the old days, all of it finding its way into the dialects^c of Greece. But the reason why more herbs are not familiar is because experience of them is confined to illiterate country-folk, who form the only class living among them; moreover nobody cares to look for them when crowds of medical men are to be met everywhere. Many simples also, though their properties have been discovered, still lack names, for instance, the plant I mentioned when dealing with the cultivation of crops,^d which we know keeps all birds away if buried at the corners of the cornfield. The most

*Medicinal
herbs in
modern
times.*

foot.” There is nothing unusual in the zeugma of taking both *vulnera* and *morbis* with *inflammari*. Possibly *superventu* has been misplaced by a scribe.

^c It is difficult to see why Pliny has used the plural. In the first place there is no point in referring to dialects, and in the second it is a misleading, if not inaccurate, remark. Most Greek medical works, at least down to the beginning of the Alexandrine era, were written in an artificial variety of Ionic. After 300 B.C., the *κοινή* was commonly used.

^d See XVIII. § 160.

causa raritatis quod etiam qui sciunt demonstrare
 nolunt, tamquam ipsis perituum sit quod tradi-
 derint aliis. accedit ratio inventionis anceps, quippe
 etiam in repertis alias invenit casus, alias, ut vere
 17 dixerim, deus. insanabile ad hosce annos fuit rabidi
 canis morsus pavorem aquae potusque omnis ad-
 ferens odium. nuper cuiusdam militantis in prae-
 torio mater vidit in quiete ut radicem silvestris rosae
 quam cynorrhodon vocant blanditam sibi aspectu
 pridie in fructo mitteret filio bibendam. in Lace-
 tania¹ res gercebatur, Hispaniae proxima parte, casu-
 que accidit ut milite a morsu canis incipiente ex-
 pavescere aquas superveniret epistula orantis ut
 pareret religioni, servatusque est ex insperato et
 18 postea quisquis auxilium simile temptavit. alias
 apud auctores cynorrhodi una medicina erat spon-
 giolae, quae in mediis spinis eius nascitur, cinere cum
 melle alopecias capitis expleri. in eadem provincia
 cognovi in agro hospitis nuper ibi repertum dracuncu-
 lum appellatum caulem pollicari crassitudine, versic-
 coloribus² viperarum maculis, quem ferebant contra
 omnium morsus esse remedio, alium quam quos in
 priore volumine eiusdem nominis diximus, sed huic

¹ Lacetania aliquot codd., Dellefsen : Laetania Hübner, Mayhoff.

² versicoloribus] a versicoloribus unus cod. (N) : a versico-
 loribus viperarum maculis post appellatum ponere velit
 Mayhoff.

^a This is taking *mitteret* to be the verb of a dependent
 question. It might be jussive : "how she was to send."

^b The gall called "robin's pin-cushion."

^c See XXIV. § 143.

disgraceful reason for this scanty knowledge is that even those who possess it refuse to teach it, just as though they would themselves lose what they have imparted to others. To this must be added that there is no sure method of discovery; for even of those we already know chance has sometimes been the finder; at other times, to speak the truth, the discoverer was a god. Down to recent years there has been no cure for the bite of a mad dog, a symptom of which is dread of water and aversion to drink of any kind. Recently the mother of a man serving in the praetorian guard saw in a dream how she sent ^a to her son to be taken in drink the root of the wild rose, called cynorrhodon, which by its appearance had attracted her the day before in a shrubbery. Operations were going on in Lacetania, the part of Spain nearest to Italy, and by chance it happened that the soldier, after being bitten by a dog, was beginning to show a horror of water, when a letter arrived from the mother, who begged him to obey the heavenly warning. So his life was unexpectedly saved, as was that of all who afterwards tried a similar remedy. Elsewhere among our authorities the only medicinal use of cynorrhodon to be found is that the ash of the spongy substance ^b that forms in the middle of its thorns was mixed with honey to make hair grow on the head where mange had left it bare. In the same province, on the land of my host, I learned of a recent discovery there, a stalk called dracunculus, of the thickness of a thumb, with spots of many colours like those of a viper, which people said was a remedy for the bites of all creatures, a different plant from those I have called dracunculus in the preceding ^c book. This one has a different

*Cynorrhodon
and hydro-
phobia.*

Dracunculus

PLINY : NATURAL HISTORY

- 19 alia figura, aliud miraculum exerenti se terra ad primas serpentium vernationes bipedali fere altitudine, rursusque cum isdem in terram condenti, nec omnino occultato eo apparet serpens, vel hoc per se satis officioso naturae munere, si tantum prae-
moneret tempusque formidinis demonstraret.
- 20 Nec bestiarum solum ad nocendum scelera sunt, sed interim aquarum quoque ac locorum. In Germania trans Rhenum castris a Germanico Caesare promotis maritimo tractu fons erat aquae dulcis solus, qua pota intra biennium dentes deciderent compagesque in genibus solverentur. stomacacen medici vocabant et scelotyrben ea mala. reperta auxilio est herba quae appellatur britannica, non nervis modo et oris malis salutaris, sed contra anginas quoque et contra serpentes. folia habet oblonga nigra, radicem
- 21 nigram. sucus eius exprimitur et e radice. florem vibones vocant, qui collectus prius quam tonitrum audiatur et devoratus securos in totum annum a metu anginae praestat. Frisi gens tum fida, in qua castra erant, monstravere illam, mirorque nominis causam, nisi forte confines oceano Britanniae veluti propin-
quae ¹ dicavere. non enim inde appellatam, quoniam ibi plurima nasceretur, certum est etiam tum Britan-
nia libera.

¹ veluti propinquae *cum multis codd. et vulg. Mayhoff:* velut e propinquo *Dellefsen, qui Urlichs sequitur.*

^a A Greek word, *στομακάκη*, meaning scurvy of the gums.

^b Another Greek word, *σκελοτύρβη*, meaning disorder or paralysis of the legs.

^c Possibly, "oblong."

^d Or: "bordering on the ocean, they dedicated the plant to Britain, as it were to a neighbour." I once took *Britanniae* to be the subject, having in agreement with it both

shape, and is an amazing plant in other ways; for when snakes begin to cast their slough it springs up to the height of about two feet, and then buries itself in the ground when snakes do so, and while it is concealed no snake at all is anywhere to be seen. This by itself would be a kindly service of Nature, if it only warned us and pointed out the time of danger.

Nor is it beasts alone that are guilty of causing injury; at times waters also and regions do the same. When Germanicus Caesar had moved forward his camp across the Rhine, in a maritime district of Germany there was only one source of fresh water. To drink it caused within two years the teeth to fall out and the use of the knee-joints to fail. Physicians used to call these maladies stomacace ^a and scelotyrbe.^b A remedy was found in the plant called britannica, which is good not only for the sinews and for diseases of the mouth, but also for the relief of quinsy and snake-bite. It has dark, rather long^c leaves, and a dark root. Its juice is extracted even from the root. The blossom is called vibones; gathered before thunder is heard, and swallowed, it keeps away the fear of quinsy for a whole year. It was pointed out to our men by the Frisians, at that time a loyal tribe, in whose territory our camp lay. Why the plant was so called I greatly wonder, unless perhaps, living on the shore of the British ocean, they have so named the britannica because it is, as it were, a near neighbour of Britain.^d It is certain that the plant was not so named because it grew abundantly in that island: Britain was at that time an independent state.

confines oceano and *propinque* ("being as it were a neighbour").

*Diseases
caused by
waters and
regions.*

PLINY : NATURAL HISTORY

- 22 VII. Fuit quidem et hic quondam ambitus nomini-
bus suis eas adoptandi, ut docebimus fecisse reges.
tanta res videbatur herbam invenire, vitam iuvare,
nunc fortassis aliquis curam hanc nostram frivolum
quoque existimaturis; adeo deliciis sordent etiam
quae ad salutem pertinent. auctores tamen quarum
inveniuntur in primis celebrari par est effectum earum
23 digesto in genera morborum. qua quidem in repu-
tatione misereri sortis humanae subit, praeter fortuita
casusque et quae nova omnis hora excogitat, milia
morborum singulis mortalium timenda. qui gravis-
simi ex his sint discernere stultitiae prope videri
possit, cum suus cuique ac praesens quisque atro-
cissimus videatur. et de hoc tamen iudicare aevi
experimenta, asperrimi cruciatus esse calculorum a
stillicidio vesicae, proximum stomachi, tertium
eorum quae in capite doleant, non ob alios fere morte
conscita.
- 24 A Graecis et noxias herbas demonstratas miror
equidem, nec venenorum tantum, quoniam ea con-
ditio vitae est ut mori plerumque etiam optimis
portus sit, tradatque M. Varro Servium Clodium
equitem Romanum magnitudine doloris in podagra
coactum veneno crura perunxisse et postea caruisse

^a A common phrase in Pliny is *nomine adoptare*, "to give a name to a thing."

^b See §§ 70 foll. of this Book.

VII. It was one of the ambitions of the past to give one's name ^a to a plant, as we shall point out ^b was done by kings. It was thought a great honour to discover a plant and be of assistance to human life, although now perhaps some will think that these researches of mine are just idle trifling. So paltry in the eyes of Luxury are even the things that conduce to our health. It is but right, however, to mention in the first place the plants whose discoverers can be found, with their properties classified according to the kinds of disease for which they are a remedy. To reflect indeed on this makes one pity the lot of man; besides chances and changes and the strange happenings that every hour brings, there are thousands of diseases that every mortal has to dread. To distinguish which are the most grievous of them might be considered almost an act of folly, since every man considers that the particular disease from which he is suffering at the moment is the most awful. On this point, however, the experience of time has concluded that the disease causing the sharpest agony is strangury from stone in the bladder; next comes disease of the stomach, and after that pains produced by diseases of the head; these being about the only diseases that are responsible for suicides.

*Plants
named after
persons.*

*The most
painful
diseases.*

I myself am amazed that the Greeks have described even harmful plants, and not the poisonous ones only, since the state of human life is such that death is frequently a harbour of refuge even for the most excellent of men, Marcus Varro relating that the Roman knight Servius Clodius, owing to the severe pain of gout, was forced to rub his legs all over with a poison, after which that part of his body was as free

*Harmful
plants.*

PLINY : NATURAL HISTORY

- sensu omni aequae quam dolore in ea parte corporis.
- 25 sed quae fuit venia monstrandi qua mentes solverentur, partus eliderentur, multaque similia? ego nec abortiva dico ac ne amatoria quidem, memor Luculum imperatorem clarissimum amatorio perisse, nec alia magica portenta, nisi ubi cavenda sunt aut coarguenda, in primis fide eorum damnata. satis operae fuerit abundeque praestatum, vitae salutare dixisse¹ ac pro ea inventas.
- 26 VIII. Clarissima herbarum est Homero teste quam vocari a dis putat moly et inventionem eius Mercurio adsignat contraque summa veneficia demonstrationem. nasci eam hodie circa Pheneum et in Cyllene Arcadiae tradunt specie illa Homericæ, radice rotunda nigraque, magnitudine cepae, folio scillae,
- 27 effodi autem haud² difficulter. Graeci auctores florem eius luteum pinxere, cum Homerus candidum scripserit. inveni e peritis herbarum medicis qui et in Italia nasci eam diceret, adferrique e Campania mihi³ aliquot diebus <posse⁴> effossam inter difficultates

¹ dixisse] *hic lacunam indicat Ianus, quem sequitur Mayhoff: "excidisse videntur a dis priscisve": non pro ea sed postea codd.*

² autem haud ego: haud Sillig: autem Detlefsen: autem non (*i.e.* autē n̄) Mayhoff. Cf. Theophrasti *H. P.* IX, 15, § 7 οὐ μὴν ὀρύττειν γ' εἶναι χαλεπόν.

³ mihi codd.: memini Ianus, Detlefsen: autumnus Mayhoff.

⁴ posse ego addidi.

^a The negative is added because of the words of Theophrastus given in the critical note. Homer's description is:

ρίζῃ μὲν μέλαν ἔσκει, γάλακτι δὲ εἶκελον ἄνθος.
μῶλυ δέ μιν καλέουσι θεοί. χαλεπὸν δέ τ' ὀρύσσειν
ἄνδράσι γε θνητοῖσι· θεοὶ δέ τε πάντα ἴσασιν.

Odyssey X 304-306.

^b The difficulties of this sentence seem to me to be lessened, but not fully solved, by emending *mihi* to *memini* or *autumnus*.

from sensation as it was from pain. But what excuse was there to point out the means of deranging the mind, of causing abortion, and of many similar crimes? I personally do not mention abortives, nor even love-philtres, remembering as I do that the famous general Lucullus was killed by a love-philtre, nor yet any other unholy magic, unless it be by way of warning or denunciation, especially as I have utterly condemned all faith in such practices. Enough pains, and more than enough, will have been taken if I point out plants healthful to life and discovered in order to preserve it.

VIII. The most renowned of plants is, according to Homer, the one that he thinks is called by the gods *moly*, assigning to Mercury its discovery and the teaching of its power over the most potent sorceries. Report says it grows today in Arcadia round Pheneus and on Cyllene; it is said to be like the description in Homer, with a round, dark root, of the size of an onion and with the leaves of a squill, and not ^a difficult to dig up. Greek authorities have painted its blossom yellow, though Homer describes it as white. I have met a herbalist physician who said that the plant was also to be found in Italy, and that one could ^b be brought for me from Campania within a few days, as it had been dug out there in spite of the difficulties of rocky ground, with a root

These make the present tense of *adferri* easier to understand, but leave untouched the main difficulty—that in the first clause of the sentence a general statement is made, while in the second the reference is to a particular specimen. So I propose to keep *mihi*, but to add *posse* before *effossam*: it might easily be omitted. Perhaps the sentence could be construed (without any emendation): “and that one was being brought for me from Campania etc.” But a root of 30 feet!

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saxeas radicis xxx pedes longae ac ne sic quidem solidae, sed abruptae.

28 IX. Ab ea maxima auctoritas herbae est quam dodecatheon vocant omnium deorum maiestatem commendantes. in aqua potam omnibus morbis mederi tradunt. folia eius septem lactucis simillima exeunt a lutea radice.

29 X. Vetustissima inventu paeonia est, nomenque auctoris retinet, quam quidam pentorobon appellant, alii glycyidem. nam haec quoque difficultas est quod eadem aliter alibi nuncupatur. nascitur opacis montibus caule inter folia digitorum quattuor ferente in cacumine veluti Graecas nuces quattuor aut quinque. inest his semen copiosum, rubrum nigrumque. haec medetur et Faunorum in quiete ludibriis. praecipiunt eruere noctu, quoniam si picus Martius videat tuendo¹ in oculos impetum faciat.

30 XI. Panaces ipso nomine omnium morborum remedia promittit, numerosum et dis inventoribus adscriptum. unum quippe asclepion cognominatur, a quo is filiam Panaciam appellavit. sucus est coactus ferulae qualem diximus, radice multi corticis et salsi. hac evolsa scrobem repleri vario genere

31 frugum religio est ac terrae piamentum. ubi et quonam fieret modo ac quale maxime probaretur

¹ tuendo *codd.*, *Mayhoff*: volando *coni.* *Sillig*: eruentem *Dettefsen*. *Mayhoff* etiam *coni.* vel ad tuendum (tuendū) vel interdiu.

^a *Mayhoff's maiestate* would give: "investing it with the grandeur etc." *Dodecatheon* means "plant of the twelve (greater) gods."

^b *volando* will mean "by flying at them"; *eruentem*, "the person uprooting it."

^c See XII. § 127.

thirty feet long, and even that not entire, but broken off short.

IX. After moly the plant with the highest reputation they call the dodecatheon, as a compliment to the grandeur ^a of all the twelve gods. It is said that taken in water it cures all diseases. Its leaves are seven, very like those of lettuce and sprouting from a yellow root.

The dodecatheon.

X. The first plant to be discovered was the peony, which still retains the name of the discoverer; it is called by some pentorobon, by others glycy-side, for an added difficulty in botany is the variety of names given to the same plant in different districts. It grows on shaded mountains, having a stem among the leaves about four fingers high, which bears on its top four or five growths like almonds, in them being a large amount of seed, red and black. This plant also prevents the mocking delusions that the Fauns bring on us in our sleep. They recommend us to uproot it at night-time, because the woodpecker of Mars, should he see the act, will attack the eyes in its defence.^b

The peony.

XI. The plant panaces by its very name promises to be a cure for every disease; it has many varieties, and to the gods have been ascribed the discovery of its properties. One variety in fact has the additional name of asclepion, after which Asclepius called his daughter Panacia. The juice of this plant when curdled is like that, already described,^c of fennel-giant, coming from a root with a thick and salty skin. When it has been pulled up it is a pious duty to fill in the hole with various cereals as an atonement to the earth. Where the juice is prepared, and how, and the most esteemed kind, I have already

Panaces.

inter peregrina docuimus. id quod e Macedonia adfertur bucolicon vocant armentariis sponte erumpentem sucum excipientibus; hoc celerrime evanescit. et in aliis autem generibus inprobatur maxime nigrum ac molle. id enim argumento est cera adulterati.

- 32 XII. Alterum genus heracleon vocant et ab Hercule inventum tradunt, alii origanum heracleoticum aut silvestre, quoniam est origano simile. radice inutili; de quo origano diximus.¹

XIII. Tertium panaces chironium cognominatur ab inventore. folium eius simile lapatho, maius tamen et hirsutius, flos aureus, radix parva. nascitur pinguibus locis. huius flos efficacissimus, eoque amplius quam supra dicta prodest.

- 33 XIV. Quartum genus,² panaces ab eodem Chirone repertum centaurion cognominatur, sed et pharnaceon in controversia inventionis a Pharnace rege deductum. seritur hoc, longioribus quam cetera foliis et serratis. radix odorata in umbra siccatur

¹ simile de quo diximus, radice inutili. *conl. Warmington.*

² genus] *in uncis ponit Mayhoff: servat Brakman.*

^a See the whole of XII. §§ 127, 128, especially the latter part of § 127: *semine muscariis dependente ut ferulae. excipitur sucus inciso caule messibus, radice autumno. laudatur*

described^a in my account of exotic plants. The kind imported out of Macedonia they call bucolicon,^b because herdsmen collect the sap as it exudes of its own accord; this evaporates very rapidly. As to the other kinds, the least popular is the dark and soft, for these qualities are signs of adulteration with wax.

XII. A second kind they call heracleon, and say *Heracleon*. that it was discovered by Hercules; others call it Heracleotic or wild organum, because it is like the organum I have already described;^c the root is of no value.^d

XIII. A third kind of panaces has the surname *Chironium*. chironium from Chiron the centaur who discovered it. Its leaf is like that of lapathum, but larger and more hairy. The blossom is golden and the root small. It grows in rich soils. The blossom of this kind is very efficacious, and therefore has a wider range of usefulness than that of the kinds mentioned above.

XIV. The fourth kind is the panaces discovered by *Centaurion*. the same Chiron and surnamed centaurion, but also pharnaceon, a name derived from king Pharnaces, as there is a controversy whether he was, or was not, the discoverer. This kind is grown from seed, having longer leaves than the other kinds, and with serrated edges. Its scented root is dried in the *candor eius coacti; sequens pallido statera, niger colos improbatur*.

^b "Bucolic," "pastoral," "pertaining to oxen."

^c See XX. § 170.

^d I think that a semicolon should be put at *inutili*. If with Detlefsen and Mayhoff we put a comma only, we get the sense: "the organum I have already described, whose root is of no value."

vinoque gratiam adicit. eius genera duo fecere alia aliqui, alterum lato folio, alterum tenui.¹

- 34 XV. Heracleon siderion et ipsum ab Hercule inventum est, caule tenui digitorum quattuor altitudine, flore puniceo, foliis coriandri. iuxta lacus et amnes invenitur omniaque vulnera ferro inlata efficacissime sanat.

XVI. Est Chironis inventum ampelos quae vocatur chironia, de qua diximus inter vites, sicuti de herba cuius inventio adsignatur Minervae.

- 35 XVII. Herculi eam quoque adscribunt quae apollinaris apud alios, apud nos ² altercum,³ apud Graecos vero hyoscyamos appellatur. plura eius genera: unum nigro semine, floribus paene purpureis, spinoso

¹ eius genera duo fecere alia aliqui, alterum lato folio, alterum tenui *ego*: eius genera duo fecere aliqui, levis folii, alterum tenuius *Dettefsen*: alia eius genera etc. *Mayhoff*: alia *omittunt codd.*, in quibus non eius sed huius scriptum est. *Sunt aliae lectiones, sed parvi momenti. Cf. ἄλλα δὲ πανάκη τὸ μὲν λεπτόφυλλον τὸ δὲ οὐ. Theophr. H.P. IX. 11, 4.*

² apud alios, apud nos *Urlichs*: aut *Mayhoff*: apud aut apud *codd.*: *del. Dettefsen.*

³ *Hic (ante altercum) a rabulis Urlichs*: ab alis *Dettefsen*: a rabie aliis *Mayhoff*: arabilis aut arbilis aut arabas *codd.*: *ego delevi*: apud Arabas altercum sive altercangenum *vulg.*

^a The corresponding passage in Theophrastus implies a reference to two other sorts of panaces; the ordinary text of Pliny refers to two sorts of "this" kind, that is, of centaury. Either Pliny has muddled once more, or his text must be emended. I have adopted the second alternative, thinking with Mayhoff that *alia* has dropped out, although

shade, and adds a pleasing taste to wine. Some hold that there are two other kinds of panaces, one with a broad, the other with a slender, leaf.^a

XV. *Heracleon siderion* ("ironwort") is yet another discovery of Hercules. It has a slender stem about four fingers high, a flower of a deep red and leaves like those of coriander. It is found near ponds and rivers, and heals very thoroughly all wounds inflicted by iron.^b *Heracleon siderion.*

XVI. A discovery of Chiron's was the vine called *chironia*, which I have mentioned in my section on the vines;^c I have also mentioned a plant, the discovery of which is attributed to Minerva.^d

XVII. To Hercules too they ascribe the plant which is called *apollinaris* by some, *altercum* by us Romans,^e but by the Greeks *hyoscyamos* ("pig's bean"). There are several kinds of it: one has black seed, with flowers that are almost purple, and a *Apollinaris.*

I would insert it before *aliqui* and not after *adicit*, and agree with Detlefsen that *huius* should be changed to *eius* or *panacis*. My other emendations are based on *folio*, the reading of the MSS. V and R, and on the *λεπτόφυλλον* of Theophrastus.

^b Hence the name *siderion*, derived from the Greek *σίδηρος*, iron.

^c See XXIII. § 27.

^d See XXII. § 43.

^e I have adopted here the emendation of Ulrichs, omitting, however, his *a rabulis*. Pseudo-Dioscorides, IV. RV 68 (Wellmann), has twenty names for *hyoscyamos*, including *ἑμμανές*, *Ἀπολλινάρις* and *ἰνσάνα*. A copyist or commentator might be tempted to add a few of these, and perhaps the vulgate text arose in this way. To see in the corrupt *arabilis* or *arbilis* of three MSS. a reference to the madness supposed to be caused by *hyoscyamos* is natural; hence the *a rabie* of Mayhoff. But the variations in the MSS. have the appearance of corrupt glosses. The curious *a rabulis* of Ulrichs supposes a connection between *altercum* and *altercor*.

calyce; ¹ nascitur in Galatia. vulgare autem candidius est et fruticosius, altius papavere. tertii semen irionis semini simile, sed omnia insaniam gignentia
 36 capitisque vertigines. quartum genus molle, lanuginosum, pinguius ceteris, candidi seminis, in maritimis nascens. hoc recepere medici, item rufi seminis. nonnumquam autem candidum rufescit, si non ematuruit. inprobaturque, et alioqui nullum nisi cum inaruit legitur. natura vini ideoque mentem caputque infestans. usus seminis et per se et suco expresso. exprimitur separatim et caulibus foliisque. utuntur et radice, temeraria in totum, ut arbitror, medicina.
 37 quippe etiam foliis constat mentem corrumpi, si plura quam quattuor bibant; bibebant ² etiam antiqui in vino febrem depelli arbitrantes. oleum fit ex semine, ut diximus, quod ipsum auribus infusum temptat mentem, mireque ut contra venenum remedia prodidere iis qui id bibissent et ipsum pro remediis, adeo nullo omnia experiendi fine ut cogerent ³ etiam venena prodesset.

¹ spinoso calyce *ego*: spinosum calice *Mayhoff*: spinosum — talis etc. *Dellefsen*: spinosum talis aut tale *codd.*

² bibebant *ego addidi*: lacunam indicat *Ianus*, quem sequitur *Mayhoff*, qui tot bibi inbebant supplere malit. *Brakman* quoque (*Mnemosyne* 1930) bibebant coni.

³ cogerent *Ianus*: cogant *Mayhoff*: cogerentur *vulg.*: cogeret *codd.*

^a *Mayhoff's* emendation was suggested by *Dioscorides* IV. 68: ὁ μὲν γὰρ . . . φέρει . . . τοὺς κυτίνους σκληροὺς καὶ ἀκανθώδεις. I have, however, slightly altered the emendation and the construction.

^b In pseudo-Dioscorides ἰνσάνα is given as the Roman name for hyoscyamos. This is the reason why I am doubtful about the text of § 35 in initio.

^c *Etiam*: "even though it is so dangerous."

thorny calyx,^a growing in Galatia. The common kind, however, is whiter and more bushy; it is taller than the poppy. The seed of the third kind is like the seed of irio; but all kinds cause insanity ^b and giddiness. A fourth kind is soft, downy, richer in juice than the others, with a white seed, and growing in places near the sea. This is a kind that medical men have adopted, as they have that with a red seed. Sometimes, however, the white seed turns red if gathered before getting ripe, and then it is rejected; and generally no kind is ever gathered before it has become dry. It has the character of wine, and therefore injures the head and brain. Use is made of the seed as it is or when the juice has been extracted from it. The juice is extracted separately also from the stems and leaves. They also use the root, but the drug is, in my opinion, a dangerous medicine in any form. In fact, it is well known that even the leaves affect the brain if more than four are taken in drink; yet ^c the ancients used to take them in wine under the impression that fever was so brought down. An oil is made from the seed, as I have said,^d which by itself if poured into the ears deranges the brain. It is a wonderful thing that they have prescribed remedies for those who have taken the drink, which implies that it is a poison, and yet have included it among remedies; so unwearied have been researches in making every possible experiment, even to compelling ^e poisons to be helpful remedies.

^a See XV. § 30 and XXIII. § 94.

^e It makes very little difference whether we read *cogerent* with Jan or *cogant* with Mayhoff. The first takes its sequence from the idea of *past* time, the second from the idea of *present* time, both implicit in *nullo fine*.

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- 38 XVIII. Linozostis sive parthenion Mercurii inventum est. ideo apud Graecos Hermu poan multi vocant eam, apud nos omnes mercurialem. duo eius genera: masculus et femina, quae efficacior. caule est ¹ cubitali, interdum ramoso in cacumine, ocimo angustioribus foliis, geniculis densis, alarum cavis multis, semine in geniculis dependente feminae copioso, mari iuxta genicula stante rariore ac brevi
- 39 contortoque, feminae soluto et candido. folia maribus nigriora, feminis candidiora, radix supervacua, praetenuis. nascuntur in campestribus cultis. mirumque est quod de utroque eorum genere proditur: ut mares gignantur hunc facere, ut feminae illam. hoc contingere, si a conceptu protinus bibatur sucus in passo edanturve folia decocta ex oleo et sale, vel cruda ex aceto. quidam decocunt eam in novo fictili cum heliotropio et duabus vel tribus specieis,
- 40 donec cogatur. decoctum dari iubent et herbam ipsam in cibo altero die purgationis mulieribus per triduum, quarto die a balineo coire eas. Hippocrates miris laudibus in mulierum usum praedicavit has;

¹ est *Dellefsen*: et unus cod. et *Mayhoff*, qui aliter dist. et lacunam post geniculis indicat. Ego *Dellefsen* sequor. Desunt §§ 38-41 in codd. VRdT.

^a *Dioscorides* has (IV. 189): ἔχει δὲ φύλλον ὁμοιον ὠκίμῳ πρὸς τὸ τῆς ἐλξίνης, ἔλαττον δέ, κλωνία διγόνατα, μασχάλας πολλάς, πυκνὰς ἔχοντα· τὸν δὲ καρπὸν ἢ μὲν θήλεια βοτρυνοειδῆ καὶ πολὺν ἢ δὲ ἄρρην πρὸς τοῖς πετάλοις μικρόν, στρογγύλον, ὥσπερ ὀρχίδια κατὰ δύο προσκείμενα. This is so unlike the Pliny passage in details, although parts are very similar (particularly *densis, alarum cavis multis* and *μασχάλας πολλάς*,

XVIII. *Linozostis* or *parthenion* was discovered by Mercury, and so many among the Greeks call it "Hermes' grass", but all we Romans agree in calling it *mercurialis*. There are two kinds of it, the male and the female, the latter having the more powerful properties. It has a stem which is a cubit high and sometimes branchy at the top, leaves narrower than those of *ocimum*, joints close together and many hollow axils. The seed of the female hangs down in great quantity at the joints; while that of the male stands up near the joints, less plentiful, short and twisted; the female seed is loose and white.^a The leaves of the male plant are darker, those of the female lighter; the root is quite useless and very slender. It grows in flat, cultivated country. A remarkable thing is recorded of both kinds: that the male plant causes the generation of males and the female plant the generation of females. This is effected if immediately after conceiving the woman drinks the juice in raisin wine, or eats the leaves decocted in oil and salt, or raw in vinegar. Some again decoct it in a new earthen vessel with *heliotropium* and two or three ears of corn until the contents become thick. They recommend the decoction to be given to women in food, with the plant itself, on the second day of menstruation for three successive days; on the fourth day after a bath intercourse is to take place. Hippocrates^b has bestowed very high praise on these plants for the diseases of women; no medical man

Linozostis o
parthenion.

πυκνός), that I hesitate to emend Pliny so as to harmonize his account with Dioscorides.

^b See Littré's vol. X. pp. 690, 691 for references to the herb mercury in the Hippocratic *Corpus*.

ad¹ hunc modum medicorum nemo novit. ille eas
 volvae cum melle vel rosaceo vel irino vel lilino
 admovit, item ad ciendos menses secundasque. idem
 praestare potu fotuque dixit. instillavit auribus
 olidis² sucum. suco³ inunxit cum vino vetere
 41 alvum.⁴ folia inposuit epiphoris. stranguriae et ve-
 sicis decoctum eius dedit cum murra et ture. alvo
 quidem solvendae vel in febris decoquatur⁵ quantum
 manus capiat in duobus sextariis aquae ad dimidias.
 bibitur sale et melle admixto nec non cum ungula
 suis aut gallinaceo decocta⁶ salubrius. purgationis
 causa putavere aliqui utramque dandam per se sive⁷
 cum malva decoctam.⁸ thoracem purgant, bilem
 detrahunt, sed stomachum laedunt. reliquos usus
 dicemus suis locis.

¹ ad E *cod. a, vulg., Detlefsen* : at *vet. Dal., Mayhoff.*

² olidis *Gelen., Detlefsen, Mayhoff* : solidis E a : surdis
vulg.

³ sucum. suco *ego* : suco *duo codd., Detlefsen* : sucum
vulg., Mayhoff.

⁴ alvum (alvū) *ego* : alvo *aut albo codd.*

⁵ decoquatur E a, *vulg., Detlefsen* : decoquitur *Basileensis editio, Mayhoff.*

⁶ decocta *vet. Dal., Sillig, Mayhoff* : decoctae E : decoctum
vulg. : mixtum cod. a, Detlefsen.

⁷ per se sive *vet. Dal. : sive codd., vulg., edd. : in cibo coni. Mayhoff.*

⁸ decoctam *vet. Dal., Mayhoff* : decocta a, *Detlefsen* :
 decoctum E *vulg.*

^a With the reading at : " but no medical man recognises
 now this method of treatment."

recognises its virtues after this fashion.^a He used them as pessaries for uterine troubles, adding thereto honey, or oil of roses or of iris or of lilies, also as an emmenagogue and to bring away the after-birth. The same effects, he said, resulted from taking them in drink and from using them for fomentations. He dropped the juice into foul-smelling ears, and with the juice and old wine made an embrocation for the abdomen. The leaves he applied to fluxes from the eyes. A decoction of it with myrrh and frankincense he prescribed for strangury and bladder troubles. For loosening the bowels, however, or for fever, a handful of the plant should be boiled down to one half in two sextarii of water. This is drunk with the addition of salt and honey, and if the decoction has been made with a pig's foot or a chicken added, the draught is all the more beneficial. Some have thought that as a purge both kinds should be administered, either by themselves or with mallows added to the decoction.^b They purge the abdomen^c and bring away bile, but they are injurious to the stomach. Their other uses we shall give in the appropriate places.^d

^b With Mayhoff's conjecture *in cibo*: "both kinds should be given in food, boiled down with mallows."

^c This seems to be the meaning here of *thorax*, as it is of *θώραξ* very often in Greek. Cf. Festugière on [Hippocrates] *Ancient Medicine* XXII, who quotes many passages proving that *θώραξ* meant the entire cavity of the torso.

^d Throughout this chapter the translator misses the four good MSS. VRdT. In many places the reading is uncertain, and I have by emendations and changes of punctuation tried to produce a better text than either Detlefsen or Mayhoff, with an uneasy feeling that I have made no improvement, or perhaps even made bad worse.

- 42 XIX. Invenit ¹ et Achilles discipulus Chironis qua
volneribus mederetur. quae ob id achilleos vocatur.
hac sanasse Telephum dicitur. alii primum aeru-
ginem invenisse utilissimam emplastris, ideoque
pingitur ex cuspide decutiens eam gladio in vulnus
Telephi, alii utroque usum medicamento volunt.
alii et hanc panacem Heracliam, alii sideriten et
apud nos millefoliam vocant, cubitali scapo, ramosam,
minutioribus quam feniculi foliis vestitam ab imo.
- 43 alii fatentur quidem illam vulneribus utilem, sed
veram achilleon esse scapo caeruleo pedali, sine
ramis, ex omni parte singulis foliis rotundis eleganter
vestitam; alii quadrato caule, capitulis marrubii,
foliis quercus, hac etiam praecisos nervos glutinari.²
faciunt alii et ³ sideritim in maceriis nascentem, cum
- 44 teratur, foedi odoris, etiamnum aliam similem huic
sed candidioribus foliis et pinguioribus, teneriorem
cauliculis, in vineis nascentem; aliam⁴ vero binum
cubitorum, ramulis exilibus, triangulis, folio filicis,
pediculo longo, betae semine; omnes vulneribus
praecipuas. nostri eam quae est latissimo folio
scopas regias vocant. medetur anginis suum.
- 45 XX. Invenit et Teucer eadem aetate teucrion,
quam quidam hemionion vocant, spargentem iuncos

¹ invenit *vulg.*, *Dettefsen* : invenisse *coni.* *Mayhoff*, qui et
ac non hac postea scribit et quae . . . vocatur in *parenthesi*
ponit.

² glutinari *Urlichs*, *Dettefsen*, *Mayhoff*, qui et glutinant *coni.* :
glutinare *codd.*

³ alii et *Mayhoff* : et *Dettefsen* cum VR d : alia (ali et ?) E :
alii *vulg.*

⁴ aliam *vulg.*, *Dettefsen* : aliqui *Mayhoff* : alioqui aut
alioque *codd.*

XIX. Achilles too, the pupil of Chiron, discovered ^a *Achilleos*. a plant to heal wounds, which is therefore called achilleos, and by it he is said to have cured Telephus. Some have it that he was the first to find out that copper-rust is a most useful ingredient of plasters, for which reason he is represented in paintings as scraping it with his sword from his spear on to the wound of Telephus, while others hold that he used both remedies. This plant is also called by some Heracleian panaces, by others siderites, and by us millefolia; the stalk is a cubit high, and the plant branchy, covered from the bottom with leaves smaller than those of fennel. Others admit that this plant is good for wounds, but say that the real achilleos has a blue stalk a foot long and without branches, gracefully covered all over with separate, rounded leaves. Others describe achilleos as having a square stem, heads like those of horehound, and leaves like those of the oak; they claim that it even unites severed sinews. Some give the name sideritis to another plant, which grows on boundary walls and has a foul smell when crushed, and also to yet another, like this but with paler and more fleshy leaves, and with more tender stalks, growing in vineyards; finally to a third, two cubits high, with thin, triangular twigs, leaves like those of the fern, a long foot-stalk and seed like that of beet. All are said to be excellent for wounds. Roman authorities call the one with the broadest leaf royal broom; it cures quinsy in pigs.

XX. Teucer too in the same age discovered *Teucrion*. teucrion, called by some hemionion; it spreads out

^a By "discovering" a plant Pliny seems to mean discovering its value in medicine.

- tenues, folia parva, asperis locis, austero sapore, numquam florentem, nec quae¹ semen gignit. medetur lienibus, constatque sic inventam: cum exta super eam proiecta essent, adhaesisse lieniumque exinanisse. ob id a quibusdam splenion
- 46 vocatur. narrant sues qui radicem eius edint sine splene inveniri. quidam ramis hysopi surculosam, folio fabae, eodem nomine appellant et colligi cum floreat iubent—adeo florere non dubitant—maximeque ex Ciliciae et Pisidia montibus laudant.
- 47 XXI. Melampodis fama divinationis artibus nota est. ab hoc appellatur unum hellebori genus melampodion. aliqui pastorem eodem nomine invenisse tradunt, capras purgari pasto illo animadvertentem, datoque lacte earum sanasse Proetidas furentes.² quamobrem de omnibus eius generibus
- 48 dici simul convenit. prima duo sunt, candidum ac nigrum. hoc radicibus tantum intellegi tradunt plerique, alii folia nigri platano similia sed minora nigrioraque et pluribus divisuris scissa, albi betae incipientis, haec quoque nigriora et canalium dorso

¹ florentem, nec quae *Detlefsen cum uno cod.*: florem neque *Mayhoff*.

² furentes] *Hic lacunam indicat Mayhoff.*

^a See note on § 42.

^b Mayhoff supposes that there is a lacuna here with the following sense: "our authorities are not agreed about the differences between the various kinds of hellebore."

thin, rush-like twigs with small leaves, grows on rough localities, has a harsh taste, never flowers and never produces seed. It is a cure for splenic troubles, a property discovered,^a as is well known, in the following way; they say that when sacrificial entrails had been thrown on the plant, this stuck to the spleen and consumed it. On account of this the plant is called by some splenion. It is said that pigs which eat its root are found to be without a spleen. There are some who call by the same name a ligneous plant with branches like those of hyssop and leaves like those of the bean, and recommend it to be gathered when it is in flower—so these certainly hold that the plant has a flower—and they praise most highly the sort that comes from the mountains of Cilicia and Pisidia.

XXI. Melampus is well known for his skill in the arts of divination. From him one kind of hellebore is called melampodion. Some hold that the discovery is due to a shepherd called Melampus, who noticed that his she-goats were purged after browsing upon the plant, and by administering the milk of these goats cured the daughters of Proetus of their madness.^b Wherefore it is well to give here together an account of every kind of hellebore.

The chief kinds are two, the white and the black. This difference, most authorities say, applies only to the roots, others say that the leaves of black hellebore are like those of the plane but smaller, darker and with more indentations; that the leaves of white hellebore are like those of sprouting beet, but also darker and turning to red on the under side of its grooves, and that both have a stem a span high, resembling that of fennel-giant, wrapped up in skins

Melampodion.

Kinds of hellebore.

rubescencia, utraque caule palmeo¹ ferulaceo, bulborum tunicis convoluta, radice fimbriata ceparum modo. nigro equi, boves, sues necantur, itaque cavent id, cum candido vescantur. tempestivum
 49 esse tradunt messibus. plurimum autem nascitur in Oete monte, et optimum uno eius loco circa Pyram. nigrum ubique provenit, sed melius in Helicone, qui mons et aliis laudatur herbis. candidum probatur secundum Oetaeum Ponticum, tertio loco Eleaticum quod in vitibus nasci ferunt, quarto Parnasium quod adulteratur Aetolico ex vicino. nigrum ex his melampodium vocant, quo et domus suffiunt purgantque, spargentes et pecora, cum precatione
 50 sollemni. hoc et religiosius colligitur, primum enim gladio circumscribitur, dein qui succisurus est ortum spectat et precatur ut id liceat sibi concedentibus diis facere, observatque aquilae volatus, fere enim secantibus interest et, si prope advolavit, moriturum illo anno qui succidat augurium est. nec album facile colligitur, caput adgravans maxime, nisi praesumatur alium et subinde vinum sorbeatur celeriterque
 51 fodiatur. nigrum alii ectomon² vocant, alii polyrrhizon. purgat per inferna, candidum autem vomitione, causasque morborum extrahit, quondam terribile, postea tam promiscuum ut plerique studio-

¹ palmeo *coni.* Mayhoff XXVI. § 95 coll. : palmari Urlichs, Dellefsen : palmi codd. et Mayhoff.

² ectomon *Hard. ex Theophrasto et Dioscoride* : encymon plures codd., Dellefsen, Mayhoff : euchymon vulg.

^a Cf. Theophrastus *H.P. IX. 10* § 4 καθαίρουσι δὲ καὶ οἰκίας αὐτῶ καὶ πρόβατα συνεπάδοντές τινα ἐπωδὴν.

^b See Theophrastus *IX. 10* § 4 : καλοῦσι δὲ τὸν μέλανά τινες ἔκτομον Μελαμπόδιον, ὡς ἐκείνου πρῶτον τεμόντος καὶ ἀνευρόντος. Dioscorides *IV. 162* : ἐλλέβορος μέλας· οἱ δὲ Μελαμπόδιον, οἱ δὲ ἔκτομον, οἱ δὲ πολύρριζον καλοῦσι.

like those of bulbs, and with a root fringed like that of onions. The black hellebore kills horses, oxen and pigs; so they avoid it, although they eat the white kind. The latter is said to be ripe at harvest, and it grows abundantly on Mount Oeta, and the best on one part of it, around the place called Pyra. The black kind is to be found everywhere, but the better sort grows on Helicon, a mountain celebrated also for other plants. Next after the white hellebore of Oeta that of Pontus is most approved; the third place is taken by that of Elea, which is said to grow among vines, and the fourth by hellebore of Parnassus, which is adulterated by hellebore from the neighbouring country of Aetolia. Of these the black kind they call *melampodium*; with it they fumigate and cleanse houses, sprinkling it on sheep, and adding a formal prayer.^a This kind is gathered with even greater formalities. First a circle is drawn round it with a sword; then the man who is going to cut it looks at the East with a prayer that the gods will grant him permission to do so. He also keeps on the look-out for a flying eagle—for generally one is present when men cut—and if an eagle flies near, it is a sign that the gatherer will die in that year. The white too is not easy to gather: it is very oppressive to the head unless garlic is eaten beforehand, wine swallowed every now and then and the plant dug up quickly. Some call the black kind *ectomon*,^b others *polyrrhizon*.^c This purges by stool, but the white kind does so by vomiting, and carries away what might cause diseases; once regarded with horror it afterwards became so

^c "With many roots," and *ἐκτομον* means "cut out," or perhaps "cut short," cf. *decurtatae* § 53.

PLINY : NATURAL HISTORY

rum gratia ad pervidenda acrius quae commenta-
 52 bantur saepius sumptitaverint. Carneaden respon-
 surum Zenonis libris * *,¹ Drusum quoque apud nos,
 tribunorum popularium clarissimum, cui ante omnis²
 plebs astans plausit, optimates vero bellum Marsi-
 cum inputavere, constat hoc medicamento liberatum
 comitiali morbo in Anticyra insula. ibi enim tutis-
 sime sumitur, quoniam, ut diximus, sesamoides
 admiscet. Italia veratrum vocat. farina eorum
 per se et mixta radiculæ qua lanas diximus lavari
 53 sternumentum facit, amboque somnum. leguntur
 autem tenuissimæ radices brevesque ac velut decur-
 tatae et imae. nam summa, quae est crassissima,
 cepis similis, canibus tantum datur purgationis causa.
 antiqui radicem cortice quam carnosissimo seligebant,
 quod³ tenuior eximeretur medulla — hanc umidis
 spongeis opertam turgescientemque acu in longi-
 tudinem findebant, dein fila in umbra siccabant his
 utentes — nunc ramulos ipsos ab radice quam
 gravissimi⁴ corticis ita dant.⁵ optimum quod acre

¹ *Post libris excidisse se eo purgavisse putat Mayhoff.*

² omnis V, Sillig, Dettelsen, Mayhoff: omnes ceteri codd.
et vulg.

³ quod VR Dettelsen: quo d vulg. Mayhoff.

⁴ gravissimi codd., vulg., Dettelsen: grandissimi C. F. W.
 Müller: crassissimi Mayhoff.

⁵ dant Gelenius, Mayhoff: dantes codd., vulg., Dettelsen.

^a Marcus Livius Drusus, tribune of the people 91 B.C.

^b There is much to be said for the reading *omnes*: "the commons greeted with unprecedented applause." It has strong MS. support and makes excellent sense; on the other hand a scribe would find the temptation very strong to write *omnes* by mistake for *omnis* after *ante*.

popular that most scholars took it regularly to sharpen their brains for their studies. It is well known that Carneades, when preparing to reply to the works of Zeno, <purged himself with hellebore>, and that Drusus ^a among us, most illustrious of our tribunes of the people, who was cheered by all the commons standing before him ^b but charged by the aristocrats with causing the Marsic War, was on the island of Anticyra cured of epilepsy by means of this medicine. For there it is very safe to take the drug because they add to it sesamoides, as I have already said.^c In Italy it is called veratrum.

Both hellebores when ground to powder, either by themselves or combined with that of radícula, with which I said ^d wool is washed, cause sneezing, and both cause sleep. But the roots selected are the thinnest, short, and as it were cut off; only the bottom is used, for the top, which is very thick and like an onion, is given as a purge only to dogs. The old physicians used to choose the root with the most fleshy skin, thinking that the pithy part they obtained from such was more delicate. This they used to cover with moist sponges, and when it swelled they would split it lengthwise with a needle; then they would dry the thin strips in the shade, and so use them. Today they administer the shoots themselves, just as they are, that grow from roots with the heaviest ^e skin. The best hellebore has a sharp, hot

^c See XXII. § 133. Anticyra is a peninsula.

^d See XIX. § 4 and XXIV. § 9.

^e There seems no need to change *gravissimi* to *grandissimi* or *crassissimi*. "Heaviest" may well be "thickest." The reading *dantes*, I think, has arisen from *utentes* just above. The whole sentence, however, is in any case very clumsy, with a loose, almost formless, structure.

PLINY : NATURAL HISTORY

gustu fervensque in frangendo pulverem emittit. durare vim xxx annis ferunt.

- 54 XXII. Nigrum medetur paralyticis, insanientibus, hydropicis, dum citra febrim, podagris veteribus, articulariis morbis; trahit ex alvo bilem, pituitas, aquas. datur ad leniter molliendam alvum plurimum drachma una, modice quattuor obolis. miscuere aliqui et scamonium, sed tutius salem. in dulcibus datum copiosius periculum infert, oculorum caliginem fotu discutit. ob id quidam et inunxere trito.
- 55 strumas, suppurata, duritias concoquit et purgat, item fistulas tertio die exemptum. verrucas tollit cum squama aeris et sandaraca. hydropicorum ventri inponitur cum farina hordeacea et vino. pecorum et iumentorum pituitas sanat surculo per aurem traiecto et postero die eadem hora exempto, scabiem quadripedum cum ture, cera ac pice vel cum pisselaeo.
- 56 XXIII. Album optimum, quod celerrime movet sternumenta, sed multum terribilius nigro, praecipue si quis apparatus poturorum apud antiquos legat contra horrores, strangulatus, intempestivas somni vires, singultus infinitos aut sternumenta, stomachi dissolutiones, tardiores vomitus aut longiores, exiguos aut nimios. quippe alia dare soliti quae concitarent vomitiones ipsumque helleborum extrahere medicamentis aut clysteribus, saepius etiam sanguine venis
- 57 emissio. iam vero et cum prospere cedat, terribili

^a Black or impure oxide of copper.

^b Disulphide of arsenic.

^c See XXIV. § 19.

^d Or possibly: "very often."

taste, and gives out dust when broken. It keeps, it is said, its efficacy for thirty years.

XXII. Black hellebore is a cure for paralysis, *Black hellebore.* madness, dropsy without fever, chronic gout and diseases of the joints; it draws from the belly bile, phlegms and morbid fluids. For gently moving the bowels the maximum dose is one drachma; a moderate one is four oboli. Some have mixed scammony also with it, but to add salt is safer. A larger dose given in sweet substances is dangerous; used as a fomentation it disperses films over the eyes. Therefore some have also pounded it and made an eye salve. It matures and clears up scrofulous sores, suppurations and indurations; fistulas also if it be taken off on the third day. With copper scales ^a and sandarach ^b it removes warts. With barley meal and wine it is applied to the abdomen for dropsy. It cures phlegms in cattle and draught animals if a spray be passed across the ear and taken out at the same hour on the next day; with frankincense, wax and pitch, or with pisselaen ^c it cures itch in quadrupeds.

XXIII. The best white hellebore is that which *White hellebore.* most quickly causes sneezing. It is, however, far more terrifying than the black sort, especially if one reads in our old authorities of the elaborate precautions, taken by those about to drink it, against shivering, choking, overpowering and unseasonable sleep, prolonged hiccough or sneezing, fluxes of the stomach, vomiting, too slow or too long, scanty or too excessive. In fact they usually gave other things to promote vomiting, and drove out the hellebore itself by medicine or enema, or more often ^d they used even bleeding. Furthermore, even when the hellebore

visu,¹ variis coloribus vomitionum et post vomitiones observatione alvi, balnearum dispensatione, totius corporis cura, antecedente omnia haec magno terrore famae, namque tradunt absumi carnem,² si coquatur una. sed antiquorum vitium erat quod propter hos metus parcius dabant, cum celerius erumpat quo
58 largius sumitur. Themison binas non amplius drachmas datavit, sequentes et quaternas dedere claro Herophili praeconio, qui helleborum fortissimi ducis similitudini aequabat. concitatis enim intus omnibus ipsum in primis exire. praeterea mirum inventum est quod incisum forficulis, ut diximus, cribrant, cortex remanet, hoc inaniunt, medulla cadit, haec in nimia purgatione data vomitiones sistit.

59 XXIV. Cavendum est felici quoque cura ne nubilo die detur, inpetibiles quippe cruciatus existunt. nam aestate potius quam hieme dandum non est in dubio. corpus septem diebus ante praeparandum cibis acribus, abstinencia vini, quarto et tertio die vomitionibus, pridie cenae abstinencia. album et in

¹ terribili visu E *Detlefsen* : terribilius *Mayhoff* : terribilis visu *multi codd.*

² carnem E, *vulg.*, *Detlefsen* : carnes *quinque codd. et Mayhoff*, qui XXIII. §§ 126, 127, 150 *confert.* Sed hic caro verbi coquatur esse subiectum videtur.

^a Mayhoff's conjecture *terribilius* (*sc. helleborum est*) makes the grammar simpler, the ablatives being causal and depend-

proves successful, the various colours ^a of the vomits are terrifying to see, and after the vomits comes the worry of watching the stools, regulating the bath, of attention to the whole body, all these troubles being preceded by the great terror caused by its reputation, for it is said that meat, if boiled with it, is consumed. It was a fault of the ancient physicians that because of these fears they used to administer this hellebore in smallish doses, since the larger the dose the quicker it is eliminated. Themison gave doses of not more than two drachmae; his successors actually increased the amount to four, because of the fine testimonial given to hellebore by Herophilus, who compared it to a truly courageous general; having aroused all within, it itself marches out in the van. Moreover, a wonderful discovery has been made; hellebore cut with scissors, as we have described, is passed through a sieve; the skin—with which they empty the stomach—remains behind, while the soft part passes through, and is given to stop the vomiting when the purging is too violent.

XXIV. Care must be taken, even with happy treat-
ment, not to administer hellebore on a cloudy day; for to do so is followed by unbearable torture. Indeed, there is no doubt that summer is a better season to give it than winter. For seven days previously the body must be prepared by acid ^b foods and by abstinence from wine; on the fourth and third days before, an emetic must be taken, and on the preceding day there should be abstinence

*How to use
hellebore.*

ing on the adjective. The reading in the text is harder, for the ablatives modify *cedit* understood from *cedat*.

^b *Acribus* may mean "sharp tasted" or "pungent."

dulci datur, aptissime vero in lente and pulte. nuper invenere dissectis raphanis inserere helleborum rursusque comprimere raphanos, ut transeat vis, atque lenimento dare. reddi post quattuor fere horas
 60 incipit. totum opus septenis peragitur horis. medetur ita morbis comitialibus, ut diximus, vertigini, melancholicis, insanientibus, lymphatis, elephantiasi albae, lepris, tetano, tremulis, podagricis, hydropicis incipientibusque tympanicis, stomachicis, spasticis cynicis, ischiadicis, quartanis, quae aliter non desinant, tussi veteri, inflationibus, torminibus redeuntibus.

61 XXV. Vetant dari senibus, pueris, item mollis ac feminei corporis animive, exilibus aut teneris, et feminis minus quam viris, item timidis, aut si exulcerata sint praecordia vel tumeant, minime sanguinem excreantibus causariisve latere, faucibus. medetur extra corporis eruptionibus pituitae cum axungia salsa inlitum,¹ item suppurationi veteri. mures polentae admixtum necat. Galli sagittas in venatu helleboro tingunt circumcisoque vulnere teneriorem sentiri carnem adfirmant. muscae quo-

¹ *A latere usque ad inlitum ita distinguere et emendare vult Mayhoff: latere. faucibus medetur extra corpori inpositum, eruptionibus pituitae cum axungia salsa inlitum.*

^a In § 54 it is said that black hellebore is dangerous if given *copiosius in dulcibus*, so *et* is here probably not postponed, but "even."

^b Perhaps "in sweet wine," but the plural (*dulcibus*) in § 54 is against this.

^c See Celsus III. 21 and list of diseases. See also note *d* on p. 88.

^d Mayhoff's emendations and punctuation are attractive, and ease the structure of the next sentence considerably. The meaning would be: "If applied externally to the neck

from dinner. White hellebore is given even^a in a sweet medium,^b although most suitably in lentils or pottage. Recently the method has been discovered of splitting radishes, inserting hellebore, and then pressing the radishes together again, so that the property of the purge penetrates them; the hellebore is thus administered in a modified form. Vomiting begins after about four hours, and the whole business is over in seven. Thus given hellebore is curative of epilepsy, as has been said, giddiness, melancholia, insanity, wild distraction, white leprosy, leprous sores, tetanus, palsy, gouty affections, dropsy and incipient tympanitis,^c stomachic affections, spasmodic grins, sciatica, quartan fever that yields to no other treatment, chronic cough, flatulence and recurrent gripings.

XXV. Hellebore is never prescribed for old people or children, or for those who are soft and effeminate in body or mind, or for the thin or delicate; for women it is less suited than for men, unsuitable too for the nervous or when the hypochondria are ulcerated or swollen, very bad when there is spitting of blood, pain in the side, or sore throat.^d Applied externally with salted axle-grease it cures pituitous eruptions^e on the body and also suppurations of long standing. Mixed with pearl barley it kills rats and mice. The Gauls when hunting dip their arrows in hellebore, and say that the meat when the flesh round the wound has been cut away tastes more tender. Flies too die if pounded white hellebore

it is a cure for sore throats, and an embrocation of hellebore with salted axle-grease, etc." But the falling out of *inpositum* seems too unlikely for the restoration to be adopted with confidence.

^e See list of diseases,

que necantur albo trito et cum lacte sparso. eodem et phthiriasis emendatur.

- 62 XXVI. Ipsi Mithridati Crateuas adscripsit unam, mithridatiam vocatam (huic folia duo a radice acantho similia, caulis inter utraque sustinens
63 roseum florem). XXVII. alteram Lenaeus, scordotim sive scordion, ipsius manu descriptam,¹ magnitudine cubitali, quadriangulo caule, ramosam, querna similitudine foliis lanuginosis. reperitur in Ponto, campis pinguibus umidisque, gustus amari. est et alterius generis, latioribus foliis, mentastro similis, plurimosque utraque ad usus per se et inter alia in antidotis.
- 64 XXVIII. Polemoniam alii philetaeriam ab certamine regum inventionis appellant, Cappadoces autem chiliodynamiam, radice crassa, exilibus ramis quibus in summis corymbi dependent, nigro semine, cetero rutae similis, nascitur in montosis.
- 65 XXIX. Eupatoria quoque regiam auctoritatem habet, caulis lignosi, nigricantis, hirsuti, cubitalis et aliquando amplioris, foliis per intervalla quinquefolii aut cannabis per extremitates incisis quinquepertito, nigris et ipsis plumosisque, radice super-

¹ descriptam *Caesarii editio et Basileensis editio* : adscriptam *codd., edd.*

^a The old reading *descriptam*, although found in no MS. and in no modern edition, is probably right; *adscriptam* might easily have been written by a scribe who had just written *adscripsit*, although the mistake may have been made by Pliny's amanuensis. Another possible solution is that *adscriptam* has displaced an entirely different word, such as *depictam* or *collectam*.

^b Polemon, King of Pontus, and Philetaerus, King of Cappadocia.

and milk are sprinkled about. Phthiriasis too is cured by the same preparation.

XXVI. To Mithridates himself Crateuas ascribed *Mithridatia* one plant, called mithridatia. It has two leaves, like those of the acanthus, springing from the root, with a stem between them which supports a rose-pink flower. XXVII. A second plant was attributed to him by Lenæus, scordotis or scordion, a description ^a of it being in the hand of the King himself; it is one cubit high; its stem is quadrangular, its form is branchy, and the leaves, which are downy, are like oak leaves. It is found in Pontus on rich, moist plains, and is of a bitter taste. There is also another kind of it, with broader leaves and like wild mint, both kinds being useful for very many purposes, both by themselves and also with other ingredients to make antidotes.

XXVIII. Two kings ^b have claimed to be the discoverer of polemonia; accordingly some call it by that name and some philetaeria, while the Cappadocians call it chiliodynamia.^c It has a thick root, thin branches with clusters hanging from the ends, and black seed. In other respects it is like rue, and it grows in mountainous districts.

XXIX. Eupatoria ^d too enjoys the prestige of a *Eupatoria*. royal discoverer. It has a ligneous stem, dark, hairy, and a cubit or sometimes more in height; the leaves, arranged at intervals, are like those of cinquefoil or hemp, and have five indentations along the edge; they too are dark and feathery. The root is

^c "The plant with a thousand powers."

^d Eupator was a surname of Mithridates VI, King of Pontus. See § 62 and XXXIII. § 151.

vacua. semen dysintericis in vino potum auxiliatur unice.

- 66 XXX. Centaurio curatus dicitur Chiron, cum Herculis excepti hospitio pertractanti arma sagitta excidisset ei in pedem, quare aliqui chironion vocant. folia sunt lata et oblonga, serrato ambitu, densi¹ ab radice caules ternum cubitorum geniculati. in his capita ceu papaverum. radix vasta, rubescens, tenera fragilisque, ad bina cubita, madida suco,
- 67 amara cum quadam dulcedine. nascitur in collibus pingui solo, laudatissima in Arcadia, Elide, Messenia, Pholoe, Lycaeo, et in Alpibus vero plurimisque aliis locis. in Lycia quidem et ex ea lycium faciunt. vis in vulneribus tanta est ut cohaerescere etiam carnes tradant, si coquantur simul. in usu radix, tantum duabus drachmis bibenda quibus dicitur. si febris sit, in aqua trita, ceteris in vino medetur. et ovium² morbis decoctae sucus.

- 68 XXXI. Est alterum centaurium cognomine lepton, minutis foliis, quod aliqui libadion vocant, quoniam

¹ densi e *Dioscoride*, *Mayhoff*: densa *codd.* et *Detlefsen*.

² ovium *vulg.*: obvius d T *Detlefsen*: februm *Mayhoff*, *qui* VIII § 119, XXIII 48 *confert*: omnium *Barbarus*: iisdem *Hard.*: volvarum *Ianus*: obvium *VRE*.

^a For the meaning of *curare* and its cognates see XXIV. § 74 note c.

^b See XXIII. § 109 note d. Here a juice that served the same purpose as lycium proper, which was an astringent. See W. G. Spencer's *Celsus*, vol. II, pp. xl and xli.

^c A very difficult sentence because of the uncertainty of the reading. Three of the chief MSS. give *obvium* and two *obvius*. If *ovium* was changed to *obvium* the further change to *obvius* would be inevitable because of *sucus*. *Detlefsen* retains *obvius*, but I can find no clear instance of its use with

useless, but the seed taken in wine is a sovereign remedy in cases of dysentery.

XXX. Centaury is said to have been the treatment ^a given to Chiron when an arrow fell on his foot as he was handling the arms of Hercules, who was his guest; for which reason some call it chironion. Its leaves are broad and longish, serrated all round the edge; thickly from the root grow jointed stems three cubits high. On these are heads like those of poppies. The root is enormous and reddish, soft and easily broken, up to two cubits in size, streaming with juice and bitter with something of sweetness in it. It grows on hills with a rich soil, the most esteemed in Arcadia, Elis, Messenia, Pholoe and on mount Lycaeus; on the Alps too and in very many other places. In Lycia indeed they also make a lycium ^b from it. Its power to cure wounds is so strong that even pieces of meat, they say, coalesce if they are boiled with it. The part used is the root, the dose being for the patients for whom it will be prescribed two drachmae only. It should be pounded and taken in water if fever be present; those without fever should take it pounded but in wine. The juice of the decoction cures also the diseases of sheep.^c

XXXI. There is a second centaury, surnamed *lepton*,^d a plant with small leaves; some call it *libadion*,^e because it grows along the side of springs. *Another centaury.*

remedies in the sense of "preventive," although *obviam* and *obviare* are used to make up phrases containing the idea of "preventing," the indirect objects being *infecunditati*, *timori*, *dedecori* and *vermibus*. See Serenus VII. *cura obvia morbis*.

^d Greek λεπτός = small, fine.

^e Greek λιβάς = spring, fount.

secundum fontes nascitur, origano simile, angustioribus et longioribus foliis, anguloso caule palmum alto, fruticante,¹ flore lychnidis, radice tenui et supervacua, suco efficax. ipsa herba autumnio legitur, sucus e fronde. quidam caules concisos madefaciunt diebus XVIII atque ita exprimunt. hoc centaurium nostri fel terrae vocant propter amaritudinem summam, Galli exacum, quoniam omnia mala medicamenta potum e corpore exigat per alvum.

69 XXXII. Tertia est centauris cognomine triorchis. qui eam secat rarum est ut non vulneret sese. haec sucum sanguineum mittit. Theophrastus defendi eam inpugnarique colligentes tradit a triorche accipitrum genere, unde et nomen accepit. inperiti confundunt haec omnia et primo generi adsignant.

70 XXXIII. Clymenus a rege herba appellata est, hederæ foliis, ramosa, caule inani articulis præcincto,² odore gravi et semine hederæ, silvestribus et montuosis nascens. quibus morbis pota medeatur dicemus, sed hic indicandum est, dum medeatur, sterilitatem pota etiam viris fieri. Graeci plantagini similem esse dixerunt, caule quadrato, folliculis cum semine inter se inplexis veluti³ polyporum cirris. et sucus autem in usu, vi summa in refrigerando.

¹ fruticante *Gelenii editio Basileensis, Dellefsen* : fruticanti *vulg.* : fruticosum *Mayhoff* : fruticum aut fruticantu *codd.*

² præcincto *coni. Mayhoff* : præcincta *codd. et edd.*

³ veluti *vet. Dal., Sillig, Mayhoff* : velut in *codd., vulg., Ianus, Dellefsen.*

^a Theophrastus *H.P. IX. 8, 7.*

It is like origanum but with narrower and longer leaves; it has an angular, bushy stem a span high, a flower like that of lychnis, a slight root of no use in medicine, but with healing qualities in its juice. The plant itself is gathered in autumn, and the juice is extracted from the leaves. Some cut up and soak the stems, extracting the juice at the end of eighteen days. This centaury the Romans call the "gall of earth" on account of its extreme bitterness, while the Gauls call it exacum, because a draught of it evacuates from the body by stool all harmful drugs.

XXXII. There is a third, centauris surnamed *Triorchis*. Those who cut it nearly always wound themselves. The juice it gives out is of the colour of blood. Theophrastus ^a relates that it is defended by a species of hawk called triorchis, which attacks those who gather it. From this too it has received its name. The uninformed confuse these characteristics ^b and assign them all to the first kind of centaury.

XXXIII. Clymenus is a plant called after the *Clymenus*. king of that name. It has leaves like those of ivy, many branches, a hollow stem girded with joints, a strong smell, and seed like that of ivy; it grows in wooded, hilly districts. I shall say later what diseases it cures if taken in drink; but at the moment I must point out that, while it cures, even men are made sterile by the draught. The Greeks have said that it is like the plantain, with a square stem and seed-bags intertwined like the tentacles of the polypus. The juice too is used in medicine, as it has very great powers of cooling.

^b What are *haec omnia*. The sentence apparently means that some people recognised only one kind of centaury.

- 71 XXXIV. Gentianam invenit Gentius rex Illyriorum, ubique nascentem, in Illyrico tamen praestantissimam, folio fraxini, sed magnitudine lactucae, caule tenero pollicis crassitudine, cavo et inani, ex intervallis foliato, trium aliquando cubitorum, radice lenta, subnigra, sine odore, aquosis montibus subalpinis plurima. usus in radice et suco. radice natura est excalfactoria, sed praegnantibus non bibenda.
- 72 XXXV. Invenit et Lysimachus quae ab eo nomen retinet, celebrata Erasistrato. folia habet ut salicis viridia, florem purpureum, fruticosa, ramulis erectis, odore acri. gignitur in aquosis. vis eius tanta est ut iumentis discordantibus iugo inposita asperitatem cohibeat.
- 73 XXXVI. Mulieres quoque hanc gloriam adfectavere, in quibus Artemisia uxor Mausoli adoptata herba quae antea parthenis vocabatur. sunt qui ab Artemide Ilithyia cognominatam putent, quoniam privatim medeatur feminarum malis. est autem absinthii modo fruticosa, maioribus foliis pinguibusque. ipsius
- 74 duo genera: altera ¹ altior latioribus foliis, altera

¹ altera altior *ego* : altera *vulg.* : altior *codd.* : valdior *coni.* Mayhoff: ἡ μὲν τίς ἐστὶν αὐτῆς εὐερνῆς Dioscorides III. 113 (Wellmann). Fortasse valida.

^a Pliny has apparently forgotten that he should have written *plurimam*, partly because of the influence of *radice*.

^b The parallel passage in Dioscorides III. 113 (ἀρτεμισία) is: ἡ μὲν τίς ἐστὶν αὐτῆς εὐερνῆς, πλατύτερα ἔχουσα τὰ φύλλα καὶ τὰς ῥάβδους, ἡ δὲ λεπτότερα (? λεπτότερα), ἄνθη μικρά, λεπτά, βαρύσομα. The reading in the text implies that Pliny translated εὐερνῆς by *altior* and that *altera* has been lost before *altior*. Mayhoff suggests *valdior* for *altior*, and perhaps Pliny

XXXIV. It was a king of the Illyrians named *Gentian*. Gentius who discovered gentian, which, though it grows everywhere, is most excellent when it grows in Illyria. The leaf is like that of the ash but of the size of a lettuce leaf; the stem is tender and of the thickness of a thumb, hollow and empty, with leaves at intervals, sometimes three cubits in height, and growing from a pliant root, which is darkish and without smell. It grows abundantly^a on watery slopes near the foot of the Alps. The parts used are the root and the juice. The nature of the root is warming, but it should not be taken in drink by women with child.

XXXV. Lysimachus too discovered a plant, still *Lysimachia*. named after him, the praises of which have been sung by Erasistratus. It has green leaves like those of the willow, a purple flower, being bushy, with small upright branches and a pungent smell. It grows in watery districts. Its power is so great that, if placed on the yoke when the beasts of burden are quarrelsome, it checks their bad temper.

XXXVI. Women too have been ambitious to *Artemisia*. gain this distinction, among them Artemisia, the wife of Mausolus, who gave her name to a plant which before was called parthenis. There are some who think that the surname is derived from Artemis Ilithyia, because the plant is specific for the troubles of women. It is also bushy, resembling wormwood, but with larger and fleshy leaves. Of the plant itself there are two kinds: one higher^b and with broader leaves, the other soft and with more

wrote *altera valida* contrasted with *altera tenera*. This is perhaps what he ought to have written, but the steps by which *altera valida* could become *altior* are conjectural.

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tenera tenuioribus, et non nisi in maritimis nascens. sunt qui in mediterraneis eodem nomine appellant, simplici caule, minimis foliis, floris copiosi erumpentis cum uva maturescit, odore non iniucundo. quam¹ quidam botryn, alii ambrosiam vocant, talis in Cappadocia nascitur.

- 75 XXXVII. Nymphaea nata traditur nymphea zelytypia erga Herculem mortua — quare heracleon vocant aliqui, alii rhopalon a radice clavae simili — ideoque eos qui biberint eam XII diebus coitu genituraque privari. laudatissima in Orchomenia
76 et Marathone. Boeoti mallon vocant et semen edunt. nascitur in aquosis, foliis magnis in summa aqua et aliis ex radice, flore lilio simili et, cum defloruit, capite papaveris, levi² caule. secatur autumnno radix nigra, in sole siccatur. adversatur lieni.³ est et alia nymphaea in Thessalia, amne Penio, radice alba, capite luteo, rosae magnitudine.

¹ quam *vulg.*, *Mayhoff*: quem *plerique codd.*, *Detlefsen*.

² levi *e Dioscoride Mayhoff*: in *codd.*, *vulg.*, *Detlefsen*.

³ lieni *ego*: ita lieni *Mayhoff*: ea alvi malis *Ianus, Detlefsen*: et alium d *E vulg.*: *ceteri codd. omittunt*.

^a Dioscorides III. 114: ἀμβροσία, ἣν ἔνιοι βότρυν, οἱ δὲ ἀρτεμισίαν καλοῦσι . . . καταπλέκεται δὲ ἐν Καππαδοκίᾳ στεφάνοις.

^b Dioscorides (III. 132 Wellmann) has: ἀτονίαν τε ἐργάζεται αἰδοίου πρὸς ὀλίγας ἡμέρας, εἴ τις ἐνδελεχῶς πίνει. If this is the kind of Greek that Pliny was translating, his words should mean, not what I have written in the translation, but "are incapable of intercourse and procreation for twelve days." But a passage in XXVI. § 94 shows that Pliny

slender leaves, growing only near the sea-side. There are some who in inland districts call by the same name a plant with a single stem, very small leaves, abundant blossom bursting out when the grapes are ripening, and with a not unpleasant smell. The sort that some call botrys, and others ambrosia, grows in Cappadocia.^a

XXXVII. According to tradition *nymphaea* was *Nymphaea*. born of a nymph who died of jealousy about Hercules—for this reason some call it heracleon, others rhopalon because its root is like a club—and therefore those who have taken it in drink for twelve days are incapable of intercourse and procreation.^b The most valued kind grows in the district of Orchomenos and at Marathon. The Boeotians call it mallon,^c and eat the seed. It grows in watery places, with large leaves on the top of the water and others growing out of the root; the flowers are like the lily, and when the blossom is finished a head forms like that of the poppy; the stem is smooth.^d In autumn is cut the root, which is dark, and is dried in the sun. It reduces the spleen. There is another kind of *nymphaea* growing in the River Penius ^e in Thessaly. It has a white root, and a yellow head of the size of a rose.

thought that permanent impotence followed several doses, for he adds that a single dose produces it for forty days.

^e Hermolaus Barbarus conjectured *madon* from Theophrastus IX. 13, 1.

^d If we read *in caule* the translation will be “a head like a poppy’s forms on the stem.” Hardouin adopted an old conjecture *tenui*: “the stem is slender.”

^e The Penius is a river of Colchis: the Thessalian river is the Peneus. Probably the mistake is Pliny’s, but one MS. (d) reads *Peneo*.

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- 77 XXXVIII. Invenit et patrum nostrorum aetate rex Iuba quam appellavit euphorbeam medici sui nomine. frater is fuit Musae a quo divum Augustum conservatum indicavimus. iidem fratres instituere a balineis frigida multa corpora adstringere. antea non erat mos nisi calida tantum lavari, sicut apud
- 78 Homerum etiam invenimus. sed Iubae volumen quoque extat de ea herba et clarum praeconium. invenit eam in monte Atlante, specie thyrsi, foliis acanthinis. vis tanta est ut ¹ e longinquo sucus excipiat incisa conto; subitur excipulis ventriculo haedino.umor lactis videtur defluens;² siccatus cum coit, turis effigiem habet. qui colligunt clarius vident. contra serpentes medetur, quacumque parte percussa vertice inciso et medicamento addito ibi.
- 79 Gaetuli qui legunt taedio lacte adulterant, sed discernitur igni, id enim quod sincerum non est fastidiendum odorem habet. multum infra hunc sucum est qui in Gallia fit ex herba chamelaeae granum cocci ferente. fractus hammoniaco similis est, etiam levi gustu os accensum diu detinens et magis ex intervallo, donec fauces quoque siccet.

¹ ut e longinquo *Mayhoff*: vel e longinquo *codd. et Detlefsen*, qui postea excipitur cum V scribit.

² defluens *Salmasius*, *Mayhoff*: defluere *codd.*

^a Juba is probably the son of the Juba who committed suicide after Thapsus. He was brought to Rome by Caesar and carefully educated.

^b See note on § 42 of this book.

XXXVIII. In the age too of our fathers King *Euphorbea*. Juba ^a discovered ^b a plant to which he gave the name euphorbea, calling it after his own physician Euphorbus. This man was the brother of the Musa we have mentioned ^c as the saviour of the life of the late Emperor Augustus. It was these brothers who first adopted the plan of bracing the body by copious douches of cold water after the bath. Before this the custom was to bathe in hot water only, as we find that it is also in Homer. But the treatise also of Juba on this plant is still extant, and it makes a splendid testimonial. He discovered it on Mount Atlas; it has the appearance of a thyrsus and the leaves of the acanthus. Its potency is so great that the juice, obtained by incision with a pole, is gathered from a distance; it is caught in receivers made of kids' stomachs placed underneath. Fluid and like milk as it drops down, when it has dried and congealed it has all the features of frankincense. The collectors find their vision improved. It is employed as treatment for snake-bite. In whatever part of the body the bite may be, an incision is made in the top of the skull and the medicament inserted there. The Gaetulians who gather the juice adulterate it out of weary disgust by adding milk, but fire is a test of genuineness, for that which is adulterated emits a nauseating smell. Far inferior to the Atlas juice is that which in Gaul comes from the ground-olive, which bears a red berry like kermes. Broken it resembles hammoniacum, and even a slight taste leaves for a long time a burning sensation in the mouth; after a while this increases until it dries up even the throat.

^c See XIX. § 128.

80 XXXIX. Celebravit et Themiso medicus vulgarem herbam plantaginem tamquam inventor volumine de ea edito. duo eius genera: minor angustioribus foliis et nigrioribus, linguae pecorum similis, caule anguloso in terram inclinato, in pratis nascens. altera maior, foliis laterum modo inclusa, quae quia septena sunt, quidam eam heptapleuron vocavere. huius et caulis cubitalis est; quae¹ in umidis nascitur multo efficacior. mira vis in siccando densandoque corpore, cauterii vicem optinens. nulla res aequae sistit fluctiones quas Graeci rheumatismos vocant.

81 XL. Iungitur huic buglossos boum linguae similis, cui praecipuum quod in vinum deiecta animi voluptates auget, et vocatur euphrosynum.

XLI. Iungitur et cynoglossos caninam linguam imitata, topiariis operibus gratissima. aiunt quae tres thyrsos seminis mittat eius radicem potam ex aqua ad tertianas prodesse, quae quattuor ad quartanas. est et alia similis ei quae fert lappas minutas. eius radix pota ex aqua ranis et serpentibus adversatur.

82 XLII. Est et buphthalmus similis boum oculis, folio feniculi, circa oppida nascens, fruticosa,²

¹ est; quae in *ego*: est et uva api. in *Detlefsen*: est. et ipsa in *Mayhoff*, qui *lacunam* et radices crassitudine digitali esse coniecit: est et vapi in *codd.* Pro vapi coni. napi *Ianus* (napi similis vulg.).

² Post fruticosa *lacunam* esse puto: post caulibus *Mayhoff*.

^a As *Mayhoff* says, this sentence cannot be restored with any certainty. The reading of the MSS., *vapi*, is a *vox nihili*. Of the many emendations proposed that of *Detlefsen* is the nearest to it, and next comes that of *Jan*. *Mayhoff*'s text is but a stop-gap, and the same must be said of my *quae*, which is fairly near to the MSS., but is most unlikely to have been changed by a scribe to *et vapi*. Pliny took *heptapleuron* to mean "with seven sides," but the greater plantain has seven *ribs* on the leaf. See also *Mayhoff*'s Appendix.

XXXIX. The physician Themiso too has spread the fame of a common plant, the plantain, having published a treatise about it as though he were the discoverer. There are two kinds of it: the smaller, with narrower and darker leaves, resembles the tongue of a sheep; the stem is angular and bends downward. It grows in meadows. The other kind is larger and enclosed with leaves as it were with sides. Since these leaves are seven in number the plant is sometimes called heptapleuron. The stem too of this is a cubit high; when ^a it grows on wet soils it is much more efficacious. It has a wonderful power to dry and brace the body, having a cauterizing property. There is nothing that checks so well the fluxes called by the Greeks rheumatismoi, that is, catarrhs.

XL. Akin to the plantain is buglossos, which is like the tongue of an ox. The most conspicuous quality of this is that thrown into wine it increases the exhilarating effect, and so it is also called euphrosynum, the plant that cheers.

XLI. Akin too is cynoglossos, which is like a dog's tongue, and a most attractive addition to ornamental gardens. It is said that the root of the kind with three seed-bearing stems, if taken in water, is good for tertians, and that with four for quartans. There is also another plant like this which bears tiny burs. Its root taken in water neutralizes the poison of frogs ^b and snakes.

XLII. Another plant is buphthalmus, which is like the eyes of oxen, having leaves like those of fennel, a bushy plant growing around towns, with ^c . . .

^b *Ranae* includes toads.

^c Mayhoff suggests *mollibus*, "tender", as the missing word.

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caulibus qui et manduntur decocti. quidam calchan¹ vocant. haec cum cera steatomata discutit.

XLIII. Invenere herbas et universae gentes, Scythia primam eam quae scythice vocatur, circa Maeotim nascens, praedulcem alias utilissimamque ad ea quae asthmata vocant. magna et ea commendatio, quod in ore eam habentes sitim famemque non sentiunt.

- 83 XLIV. Idem praestat apud eosdem hippace, distincta, quod in equis quoque eundem effectum habeat, traduntque his duabus herbis Scythas etiam in duodenos dies durare in fame sitique.

XLV. Ischaemonem Thracia invenit, qua ferunt sanguinem sisti non aperta modo vena sed etiam praecisa. serpit in² terra milio similis, foliis asperis et lanuginosis. farcita³ in nares quae in Italia nascitur, et eadem adalligata, sanguinem⁴ sistit.

- 84 XLVI. Vettones in Hispania eam quae vettonica dicitur in Gallia, in Italia autem serratula, a Graecis cestros aut psychrotrophon, ante cunctas laudatissima. exit anguloso caule cubitorum duum e radice spargens folia fere lapathi, serrata, semine purpureo. folia siccantur in farinam plurimos ad usus. fit vinum ex ea et acetum stomacho et claritati ocu-

¹ calchan *multi codd.*, *Detlefsen*: chalcan *E. Mayhoff*: cachalam *Hermolaus Barbarus ex Dioscoride*.

² in *Mayhoff*: e *aut et codd.*

³ farcita (*e parcita*) *ego*: farcitur *E*: parcitum *R*: parcitam *V*¹: parcituram *V*².

⁴ *Ante eadem in codd.* sanguinem; *ego transposui*. *Inter et et sanguinem supplet ciet Mayhoff*. *Distinxi ego*.

^a The editors suggest that Pliny has wrongly thought that *ἰππᾰκή*, mare's-milk cheese, was a plant. The cheese is mentioned by Hippocrates, *Airs, Waters, Places*, ch. XVIII, but there may have been a plant of the same name.

stems that are boiled and eaten. Some call it calchas. This plant with wax added disperses fatty tumours.

XLIII. Whole tribes too have discovered plants. *Scythice*. Scythia first found out about the one called scythice, which grows round Lake Maeotis. One of its qualities is great sweetness, and it is very beneficial for the complaint called asthma. Another great merit of it is the freedom from hunger and thirst enjoyed by those who keep it in their mouths.

XLIV. The same people find the same property in their hippace,^a which has the unique quality of affecting horses in the same way. It is said that on these two plants the Scythians can fast from food and drink even for as long as twelve days at a time.

XLV. Thrace found out about ischaemon, which is *Ischaemon*. said to stanch bleeding when a vein has not merely been cut but even severed. It creeps along the ground as does millet; the leaves are rough and downy. The kind that grows in Italy, stuffed into the nostrils, and also when used as an amulet, stanches bleeding.^b

XLVI. The Vettones in Spain discovered the plant *Vettonica*. called vettonica in Gaul, serratula^c in Italy, and cestros or psychrotrophon by the Greeks, a plant more highly valued than any other. It springs up with an angular stem of two cubits, spreading out from the root leaves rather like those of lapathum, serrated, and with a purple fruiting-head. Its leaves are dried into a powder and used for very many purposes. From it^d are made a wine and a vinegar, good for the

^b Mayhoff's reading means: "stuffed into the nostrils it causes bleeding; used as an amulet it stanches it." *Farcitus* is a very late form, but Pliny may have used it.

^c "The plant with leaves like a saw."

^d *Ea* may refer to the plant or to the powder made from the leaves, probably to the latter.

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lorum, tantumque gloriae habet ut domus in qua sata sit tuta existimetur a periculis ¹ omnibus.

85 XLVII. In eadem Hispania inventa est cantabrica per divi Augusti tempora a Cantabris reperta. nascitur ubique caule iunceo pedali, in quo sunt flosculi oblongi veluti calathi, in his semen perquam minutum. nec alias defuere Hispaniae herbis exquirendis, ut in quibus etiam nunc hodie in more sit laetiore convictu potionem e centum herbis mulso additis credere saluberrimam suavissimamque. nec quisquam genera earum iam novit aut multitudinem, numerus tamen constat in nomine.

86 XLVIII. Nostra aetas meminit herbam in Marsis repertam. nascitur et in Aequicolis circa vicum Nervesiae, vocatur consiligo. prodest, ut demonstrabimus suo loco, deploratis in phthisi.

87 XLIX. Invenit nuper et Servilius Democrates e primis medentium quam appellavit hiberida, quamquam ficto nomini inventione ² eius adsignata carmine. nascitur maxime circa vetera monumenta parietinasque et inculta itinerum. floret semper, folio nasturtii, caule cubitali, semine vix ut aspici possit. radici odor nasturtii. usus aestate efficacior et recenti

¹ periculis V² *Detlefsen* : piaculis *Mayhoff* : piculis V¹.

² inventione *Salmasius*, *Sillig*: inventioni *codd.*: aliae lectiones nomine (*coni.* homini *Mayhoff*) et assignato.

^a Mayhoff's reading (*piaculis*) is attractive because difficult, and is different from V¹ by one letter only. It would mean "crime" or "sin".

^b The *calathus* was trumpet-shaped, and so *oblongus* cannot here mean "oblong".

^c I.e., the potion is called the "hundred-plant drink".

^d See XXVI. § 38.

^e An obscurely expressed sentence, which led some scribes

stomach and the eyesight. So great is its fame that the home in which it has been planted is considered to be safe from all dangers.^a

XLVII. In Spain too was discovered *cantabrica*, *Cantabrica* found by the Cantabri in the period of the late Emperor Augustus. It grows everywhere, having a rush-like stem a foot in length, on which are small, longish ^b flowers, shaped like a work-basket, in which are very tiny seeds. Nor have the Spains been backward in other search after plants; for example, even now today it is the custom at the more festive gatherings, to mix a drink, the "hundred-plant potion", by adding to honey wine a hundred plants, in the belief that such is both very healthful and very pleasant. Nobody, however, now knows the kinds of plants used and their exact number, although a definite number is given in the name.^c

XLVIII. Our own generation remembers the *Consiligo* discovery of a plant among the Marsi. It grows also among the Aequicoli around the village of Nervesia, and is called *consiligo*. It is beneficial, as we shall point out in its own place,^d in desperate cases of consumption.

XLIX. Servilius Democrates also, one of our fore- *Hiberis* most physicians, recently discovered the value of what he called *hiberis*, although in the verses he wrote on its discovery he assigned this to an imaginary person.^e It grows chiefly near old monuments, ruins, and the waste land beside highways. It is an ever-green, with leaves like cress, a stem a cubit high, and with seed ^f that can scarcely be seen. The root has the smell of cress. It is used more efficaciously in sum-

to think that the meaning is: "dedicating a poem to its discovery under a fictitious name". ^f Or "fruiting-head".

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88 tantum. tunditur difficulter. coxendicibus et articulis omnibus cum axungia modica utilissima, viris plurimum quaternis horis, feminis minus dimidio adalligata, ut deinde in balineis descendatur in calidam et postea oleo ac vino perunguatur corpus, diebusque vicens interpositis idem fiat, si qua admonitio doloris supersit. hoc modo rheumatismos omnes sanat occultos. inponitur non in ipsa inflammatione, sed inminuta.

89 L. Animalia quoque invenere herbas, in primisque chelidonium. hac enim hirundines oculis¹ pullorum in nido <medentur> restituuntque² visum, ut quidam volunt, etiam erutis oculis. genera eius duo: maior fruticosa, folio pastinacae erraticae ampliore, ipsa altitudine duum cubitorum, colos albicans, flos luteus. minori folia hederæ rotundiora, minus candida.

90 sucus croci mordax, semen papaveris. florent adventu hirundinum, discessu marcescunt.³ sucus florentibus exprimitur, et in aereo vase cum melle Attico leniter cinere ferventi decoquitur, singulari remedio contra caligines oculorum. utuntur et per se suco et in collyriis quæ chelidonia appellantur ab ea.

¹ oculis *Mayhoff*: oculus V²: oculos *Detlefsen*.

² restituuntque E, *Mayhoff*, qui lacunam post nido indicat et medentur coni. Ego supplementum addo *Dioscoridem secutus*: restituunt dantque V², *Detlefsen*. Non medentur sed prosunt supplet *Brakman*.

³ marcescunt R E vulg., *Mayhoff*: inarescunt *Detlefsen*: arescunt d T.

^a I have adopted the suggestion of *Mayhoff*, which he does not print in his text, because of *Dioscorides* II 180: *τινὲς δὲ προσιστόρησαν ὅτι, εἰάν τις τυφλωθῇ τῶν τῆς χελιδόνος νεοσσῶν, αἱ μητέρες προσφέρουσαι τὴν πόαν ἰῶνται τὴν πῆρωσιν αὐτοῦ*. Pliny took *πῆρωσιν* to mean that the eyes were actually gouged

mer, and only when freshly gathered will it serve. There is difficulty in pounding it. For sciatica and all complaints of the joints it is, with a little axle-grease added, very beneficial. The longest application is four hours for men and half as long for women; then the patient must go down to the hot water of the baths, and afterwards must be rubbed all over the body with wine and oil. The treatment should be repeated at intervals of twenty days, if any hint of pain persists. This treatment cures all hidden fluxes. The application is not made when inflammation is acute, but only when it has gone down.

L. Animals too have discovered plants, and among *Chelidonia*. the chief is the chelidonia. For by means of it swallows cure the eyes of the chicks in the nest, and restore the sight, as some hold, even when the eyes have been torn out.^a There are two kinds of it. The larger kind is bushy, and its leaf is like that of the wild carrot, but bigger, the plant itself being two cubits high, the colour light and the blossom yellow. The smaller has leaves like those of ivy, rounder and less pale.^b The juice is like saffron juice and pungent; the seed resembles that of the poppy. Both plants blossom when the swallow arrives and wither when he departs. The juice is extracted while the plants are flowering, and is gently boiled down with Attic honey in a copper vessel over hot ashes, being a sovereign remedy for dimness of vision. The juice is used both by itself and in the eye-salves called chelidonia after the plant.

out, whereas it merely means "blindness", as can be seen from *τὸ φλωθῆναι*. The reading *ocules* of V² probably arose from the ending of *hirundines*, the word immediately before it.

^b I.e., than the larger plant.

- 91 LI. Invenerunt et canes qua fastidium vincunt eamque in nostro conspectu mandunt, sed ita ut numquam intellegatur quae sit. etenim depasta cernitur. notata est haec animalis eius malignitas in alia herba maior. percussus enim a serpente mederi sibi quadam dicitur, sed illam homine spectante non decerpit.
- 92 LII. Simplicius cervae monstravere elaphoboscon, de qua diximus, item seselin¹ a partu et tamnum,² (LIII.) ostendere, ut indicavimus, et³ dictamnum⁴ vulneratae pastu statim telis decidentibus. non est alibi quam in Creta, ramis praetenue, puleio simile, fervens et acre gustu. foliis tantum utuntur, flos nullus aut semen aut caulis, radix tenuis ac super-
 93 vacua. et in Creta autem non spatiosa nascitur, mire-
 que capris expetitur. pro eo est et pseudodictamnum multis in terris nascens, folio simile, ramulis minoribus, a quibusdam chondris vocatum. minoris

¹ seselin coni. Mayhoff: seseli enixae Hermolaus Barbarus: helxinen Mayhoff in textu et Dellefsen: helxine aut helsine codd.

² et tamnum coni. Mayhoff VIII. § 112 collato: dictamnum Hermolaus Barbarus: dictam Mayhoff in textu, Dellefsen, codd.

³ et ego addidi.

⁴ dictamnum del. Hermolaus Barbarus.

^a See XXII. § 79.

^b VIII. § 112.

^c VIII. § 97. The reading of the MSS. is very corrupt in this sentence, and the means of an approximate restoration are to be found in the following passages: XXII. § 41: unde et helxinen dictam volunt; VIII. § 112: a partu duas, quae tamnus et seselis appellantur, pastae redeunt ad fetum; VIII. § 97: dictamnum herbam extrahendis sagittis cervi monstra-

LI. Dogs too have found a plant by which they *Plants found by dogs.* cure loss of appetite, and eat it in our sight, but in such a way that it can never be identified, for it is seen only when chewed up. This animal shows yet greater spitefulness in its secrecy about another plant; for there is one by which it is said to cure itself when bitten by a snake, but it does not crop it when a human being is looking on.

LII. With greater frankness deer have shown us *Plants found by deer.* elaphoboseon, about which we have written,^a and after yearning have made known seselis and the black bryony, as we have pointed out ^b; (LIII.) dittany also by feeding on it when wounded, the weapons at once falling out.^c The latter grows nowhere except in Crete, with branches very slender; it resembles pennyroyal and is burning and harsh to the taste. Only the leaves are employed; it has no flower, no seed and no stem; its root is slender and without medicinal value. Even in Crete it does not grow widely, and the goats are wonderfully eager to hunt it out. A substitute for it is false dittany, which grows in many lands, like true dittany in leaf but with smaller branches, and called by some chondris.

vere percussi eo telo pastuque herbae eius eiecto. A scribe with an aural memory of XXII. § 41 may have had it suggested to him by the similarity of *dictam* to *ettamnium* with *dictamnium* following a little later. *Seselin* is sufficiently like *helxinen* to the eye to set in motion latent aural memory, and the other change, the omission of a connecting particle before *dictamnium*, would follow naturally. Hermolaus Barbarus in 1492 saw that some restoration of the text was necessary, and would delete *dictamnium* before *vulneratae* and emend *dictam* to *dictamnium*. Whatever the details of the correct emendation may be, the corruption took place very early, before the archetype of our existing MSS. was written, as none of them has any sign that *helxine(n)* and *dictam* are wrong.

PLINY : NATURAL HISTORY

- effectus statim intellegitur. dictamnnum enim minima potione accendit os. qui legere eas in ferula aut harundine condunt praeligantque ne potentia evanescat. sunt qui dicant utramque nasci multifariam, sed deteriores in agris pinguibus, veram quidem dictamnnum¹ non nisi in asperis. est et tertium genus dictamnnum vocatum, sed neque facie neque effectu simile, folio sisymbri, ramis maioribus, praecedente persuasione illa quicquid in Creta nascatur infinito praestare ceteris eiusdem generis alibi genitis, proxime quod in Parnaso. alioqui herbiferum esse et Pelium montem in Thessalia et Telethrium in Euboea et totam Arcadium ac Laconicam tradunt, Arcades quidem non medicaminibus uti sed lacte circa ver, quoniam tum maxime sucis herbae turgeant medicenturque ubera pascuis. bibunt autem vaccinum, quoniam boves omnivori fere sunt in herbis. potentia earum per quadripedes etiamnum duobus claris exemplis manifesta fit. circa Abderam et limitem qui Diomedis vocatur equi pasti inflammantur rabie, circa Potnias vero et asini.
- 95 LIV. Inter nobilissimas aristolochiae nomen dedisse gravae videntur, quoniam esset ἀρίστη λεχούσαις. nostri malum terrae vocant et quattuor genera eius

¹ dictamnnum *glossema* esse putat Mayhoff.

^a Or, if *etiamnum* goes with *duobus*, "by two further examples."

It is recognised at once, as its properties are less potent, for the smallest quantity of true dittany, taken in drink, burns the mouth. Those who gather them store them in a piece of fennel-giant or reed, which they tie up at the ends, to prevent their losing efficacy. There are some who say that both plants grow in many places, but that while the inferior kinds are found on rich soils, true dittany is only seen on rough ground. There is also a third plant called dittany, unlike the others in appearance and properties; the leaves are those of sisymbrium and the branches are larger, but there is the established conviction that whatever simple grows in Crete is infinitely superior to any of the same kind to be found elsewhere, and that the next best herbs are those to be found on Mount Parnassus. Report says that simples grow besides on Mount Pelion in Thessaly, on Mount Telethrius in Euboea, and throughout Arcadia and Laconia, and that the Arcadians indeed use, not medicines, but milk in the spring season, because it is at this time chiefly that herbs are swollen with juices which, when the beasts graze, medicate their udders. But the milk they drink is cow's milk, since kine will feed on almost any kind of plant. The potency of plants becomes clear from two striking examples of their action even ^a on quadrupeds: horses that have grazed around Abdera and what is called "the bounds of Diomedes" go raving mad, as do also the asses that graze around Potniae.

LIV. Among the most celebrated plants aristolochia received its name, as is clear, from women with child, because they considered it to be ἀρίστη λεχούσαις, that is, "excellent for women in child-bed." Latin writers call it "earth apple," dis-

Aristolochia.

PLINY : NATURAL HISTORY

servant: unum tuberibus radicis rotundis, foliis inter malvam et hederam, nigrioribus mollioribusque, alterum masculae, radice longa, quattuor digitorum longitudine, baculi crassitudine, tertium longissimae, tenuitate vitis novellae, cuius sit praecipua vis, quae
 96 et clematidis¹ vocatur, ab aliis cretica. omnes colore buxco, caulibus parvis, flore purpureo. ferunt baculas parvas ut cappari. valent radice tantum. est et quae plistolochia vocatur, quarti generis, tenuior quam proxime dicta, densis radicis capillamentis, iunci plenioris crassitudine. hanc quidam
 97 polyrrhizon cognominant. odor omnium medicatus, sed oblongae radici tenuiorique gratior, carnosum enim est corticis, unguentis quoque nardinis conveniens. nascuntur pinguibus locis et campestribus. effodere eas messibus tempestivum, desquamato² terreno servantur. maxime tamen laudatur Pontica et in quocumque genere ponderosissima quaeque, medicinis aptior rotunda, contra serpentes oblonga, in summa

¹ clematidis (*ex Dioscoride*) *Hard.*, *vulg.*, *Mayhoff*: clematis *codd.* et *Dettefsen*.

² desquamato *Dettefsen*: in desquamato *Mayhoff*: ita desquamato *vulg.*: ita e squama *plerique codd.*

^a *Masculae* and *longissimae* agree with *aristolochiae* understood. Perhaps *radicis* has fallen out before *longissimae*.

^b Or "oblong" (so Littré), but this rendering seems unsuitable in view of § 95. Dioscorides (III 4. § 3) has: ἥτις καὶ κληματίτις καλεῖται - - - ἔχουσα - - - - - ῥίζας μακροτάτας, λεπτὰς, φλοιὸν ἐχούσας παχὺν καὶ ἀρωματίζοντα, ἰδίως χρησιμευούσας μυρεψαῖς εἰς τὰς τῶν μύρων στύψεις. So Pliny's *oblongae radici tenuiorique* should refer to *clematidis*, but it is

tinguishing four kinds of it: one with round tubers on the root, and with leaves partly like those of the mallow and partly like those of ivy, but darker and softer: the second is the male plant,^a with a long root of four fingers' length, thick as a walking-stick; the third is very long and as slender as a young vine, with especially strong properties, and is called by some *clematitis* and by other *cretica*. All kinds of this plant are of the colour of boxwood, and have small stems and purple blossom. They bear small berries like caper berries. Only the root has medicinal value. There is also a fourth kind, called *plistolochia*, more slender than the one last mentioned, with dense, hair-like masses for a root, and of the thickness of a stoutish rush, which some surname *polyrrhizos*. All kinds have a drug-like smell, but that of the rather long^b and slender root is more agreeable; its fleshy outer skin in fact is even suitable for nard ointments. These plants grow on plains with a rich soil. The time to dig them up is at harvest; the earth is scraped off them before they are stored away.^c The most valued root, however, comes from Pontus, and in every case the heaviest specimens are preferred; for medicines the round is more suitable, for snake bites the longer

hard to reconcile the phrase just quoted with Pliny's description of *clematitis* in § 95.

^c Mayhoff's emendation would mean: "they are stored away in earth scraped off them". He says in a note on XIX. § 115 (vol. III p. 495) that *in* is generally used with *servare* in this sense. If this restoration is correct, the implication is that the roots keep better in the earth in which they are grown. On the whole I prefer to follow Detlefsen. To clean the roots might help to keep pure the *odor medicatus*.

PLINY : NATURAL HISTORY

- tamen gloria est, si ¹ modo a conceptu admota vulvis
 98 in carne bubula mares figurat, ut traditur. piscatores
 Campaniae radicem eam quae rotunda est venenum
 terrae vocant, coramque nobis contusam mixta calce
 in mare sparsere. advolant pisces cupiditate mira
 statimque exanimati fluitant. quae polyrrhizos
 cognominatur convulsis, contusis, ex alto praeci-
 pitatis radice pota ex aqua utilissima esse traditur,
 semine pleuriticis et nervis, confirmare, excalfacere,
 eadem satyrion esse.
- 99 LV. Verum et effectus ususque dicendi sunt ordien-
 dumque a malorum omnium pessimo est, serpentium
 ictu. medentur ergo britannica herba, panacis
 omnium generum radix e vino, chironii et flos et
 semen potum inlitumve ex vino et oleo, privatim quae
 cunila bubula appellatur, polemonia vel philetaeris
 radice drachmis quattuor in mero, teucris, sideritis,
 100 scordotis ex vino, privatim ad angues, pota et inlita
 sive suco sive folio sive decocto, centaurii maioris
 radix drachma in vini albi cyathis tribus, gentiana
 praecipue adversus angues duabus drachmis cum

¹ si *Dellefsen* : ea (vel haec) si *Mayhoff* : et si fere omnes
codd. (num et ex est ortum?).

^a See note *b* on p. 206, with the *μακροτάτας* of Dioscorides.

^b The emendation of *Mayhoff* makes it a little clearer that
 the conditional clause applies to the *radix oblonga* and not to
 the *rotunda*.

^c A contradiction of *valent radice tantum* (§ 96). Through-
 out this chapter *Pliny* seems to be at his worst. It is a
 mystery why he uses *oblonga* twice, when he must refer to the
 plant called *longissima*, whereas in Dioscorides the correspond-
 ing Greek word applies to the root only, as does *oblonga*
 in § 97.

kind,^a but its greatest fame is that, if ^b only it is applied to the uterus in beef after conception, it forms according to report male offspring. The fishermen of Campania call the root that is round "poison of the earth", and I have seen them scatter it over the sea, crushed and mixed with lime. The fish rush to it with wonderful greed, forthwith die, and float on the surface. The kind called polyrrhizos is reported to be very beneficial for sprains, bruises, and falls from a height, if the root is taken in water, for pleurisy and the sinews if the seed ^c is used, and to be tonic and warming; it is reported to be the same plant as satyrion.

LIV. But we must mention also the properties and uses of these plants, and begin with snake bite, the worst ill of all. Cures then are: the plant britannica; the root of all kinds of panaces taken in wine; both flower and seed of chironium taken in drink or applied in wine and oil; what is called ox cunila, which is specific; polemonia or philetaeris, the dose being four drachmae of the root in neat wine; teuceria, sideritis, and scordotis in wine, specific remedies for snake ^d wounds, the juice or leaves or a decoction being taken in drink ^e or ^f applied; the root of the greater centaury in doses of one drachma in three cyathi of white wine; gentian, particularly good, whether fresh or dried, for snake bites in doses of two drachmae

*Cures of
snake bite*

^a The Latin of Pliny certainly seems to imply that he distinguished *anguis* from other *serpentes*, but the only discoverable difference between the two words is that the former has a rather more poetic flavour. See too XXIX. § 71.

^e *Pota* refers to *ex vino* above.

^f Perhaps "and". In such a collocation of words *et* is often ambiguous.

PLINY : NATURAL HISTORY

pipere et ruta, vini cyathis sex, sive viridis sive sicca.
 101 et lysimachiae odorem fugiunt. datur ex vino percussis chelidonia, morsibus inponitur vettonica praecipue, cui vis tanta perhibetur ut inclusae circulo eius serpentes ipsae sese interimant flagellando. datur ad ictus semen eius denarii pondere cum tribus cyathis vini vel farina drachmis tribus sextario ¹ aquae—farina et inponitur ²—cantabrica, dictamnium, aristolochia radicis drachma in vini hemina, sed saepius bibenda. prodest et inlita ex aceto, similiter plistolochia, quin omnino suspensa supra focum fugat
 102 e domibus serpentes. LVI. argemonia quoque radice eius ³ denarii pondere in vini cyathis tribus pota. plura de ea convenit dici ceterisque, quando ⁴ primum nominabuntur, in eo autem genere medendi primum nominari quamque in quo maxime valebit. folia habet qualia anemone, divisa apii modo, caput in cauliculo papaveris silvestris, item ⁵ radicem, sucum croci colore acrem et acutum. nascitur in arvis. apud nos tria genera eius faciunt et id demum probant cuius radix tus redoleat.

¹ sextario] ex *vel* in *anteponere velit* Mayhoff.

² inponitur *Detlefsen et Mayhoff*: reponitur *Ianus*, § 115 coll.: ponitur *codd.* De hac sententia “locus nondum sanatus” scribit *Mayhoff*.

³ radice eius *codd.* radicis *Mayhoff*.

⁴ quando *Detlefsen*: qua *Mayhoff*: quo aut qm aut quoniam *codd.*

⁵ item *Detlefsen, Mayhoff, codd.* *Mayhoff coni.* (ex *Dioscoride*) teretem.

taken with pepper and rue in six cyathi of wine. The smell too of lysimachia keeps snakes away. Those who have been bitten are given chelidonia in wine, and to the bites is applied in particular betony, the power of which is said to be so great that snakes enclosed in a circle of it lash themselves to death. For the bites is given its seed, the dose being a denarius with three cyathi of wine, or else it is ground and three drachmae of the powder are given in a sextarius of water; the powder is also applied locally. Cantabrica too is used, and dittany, and aristolochia, a drachma of the root in a hemina of wine, but the dose must be repeated several times. Aristolochia in vinegar also makes a useful application, and so does plistolochia, in fact the mere hanging of this above the hearth makes all snakes hurry from the house. LVI. Argemonia too is good, a denarius of its root being taken in three cyathi of wine. It is proper for more details to be given about this plant, and about the others, when the first mention is made of them, and the first mention of each should be when I deal with that medical treatment where its use will prove most effective. It has leaves like those of the anemone, divided like those of celery, a head like that of the wild poppy upon a small stalk, the root also ^a being like that of this poppy, and saffron-coloured juice that is pungent and sharp. It grows in cultivated fields. We Romans distinguish three kinds of it, and the one esteemed is that the root of which smells like frankincense.

^a There is much to be said for Mayhoff's conjecture *teretem*; see Dioscorides II. 176 ῥιζία λεπτά καὶ πλείω. But *item* just makes sense, and there is no variation in the MSS.

- 103 LVII. Agaricum ut fungus nascitur arboribus circa Bosporum colore candido. dantur oboli quattuor contriti cum binis cyathis aceti mulsi. id quod in Gallia¹ nascitur infirmius habetur, praeterea mas spissior amariorque²—hic et capitis dolores facit—femina solutior, initio gustus dulcis mox in amaritudinem transit.
- 104 LVIII. Echios utriusque generis³ puleio similis, foliis coronat⁴; datur drachmis duabus ex vini cyathis quattuor.⁵ item altera, quae lanugine distinguitur spinosa, cui et capitula viperæ similia sunt, hæc ex vino et aceto. quidam echion personatam vocant cuius folio nullum est latius, grandes lappas ferentem. huius radicem decoctam ex aceto dant potui. hyos-

¹ Gallia *Detlefsen, Mayhoff, codd.*: Galatia ex *Dioscoride Sillig.*

² spissior amariorque *Detlefsen, Mayhoff, d.*: spissiora maiorque V: maiorque spissiorque E.

³ *Post generis lacunam statuit Ianus, nescio an recte.*

⁴ coronat; datur coni. *Mayhoff, qui XXI. 52, 54 confert*: coronaria *Detlefsen*: coronata (corinata V) *codd.*

⁵ quattuor *codd. et editores recentes*: quattuor datur *vulg.*

^a Dioscorides has Galatia, the Greek for Gaul.

^b *Praeterea* is unexpected, and no emendation suggests itself. Dioscorides does not help, because he and Pliny differ here so widely. The *propterea* of V seems a mere error.

^c Dioscorides says this of both "sexes": γεύσει δὲ ἀμφοτέρα ὅμοια, κατ' ἀρχὰς μὲν γλυκάζοντα, εἶτα ἐξ ἀναδόσεως ἔμπικρα (III. 1). The two authorities might be made to agree by putting a full stop at *solutior*, but then *amarior* conflicts with *dulcis*. This difficulty might be avoided by reading *maiorque spissiorque* with E, but these words seem a scribe's correction of *spissiora maiorque* (V.), which however is surely a wrong division of *spissior amariorque*, the reading in the text.

LVII. An agaric grows as a white fungus on trees *Agaric.* around the Bosporus. A dose is four oboli crushed and two cyathi of oxymel. The kind that grows in Gaul ^a is considered of inferior strength; further,^b the male is firmer and more bitter—this kind causes headaches—but the female is softer, and at first its taste is sweet, but afterwards turns bitter.^c

LVIII. Echios of either kind is like pennyroyal ^d; *Echios.* its foliage is used for chaplets. The dose is two drachmae in four cyathi of wine; likewise ^e with the second kind, which is marked by a prickly down, and also has little heads like a viper's; this is taken in wine and vinegar. Some give the name echios to personata ("masked plant") whose leaf is broader than that of any kind,^f and which bears large burs. A decoction of the root of this is given with vinegar as a

^a The MSS. give no variant, and only Jan among the editors thinks that something is wrong, or missing, here. So I have done my best to make sense of Mayhoff's text, but I suspect, with Jan, that there is a lacuna after *generis*. The missing words would be something giving the sense of: *contra serpentes (aspidas?) utilis. altera*, "is good for the poison of snakes (asps?). The first kind is like etc." Perhaps a sleepy scribe was led astray by the like endings of *utilis* and *similis*. An *altera* to correspond to the *item altera* of the next sentence is required, and some versions, including Littré's, assume its presence.

^e The translators, so far as I have seen, omit *item*. I think that it refers to the dosage, and means that the dose of the second kind is two drachmae of the herb to four cyathi of liquid; only the latter, as we see from the end of the sentence, is wine and vinegar, not wine only.

^f Apparently "of any other kind of echios". The Latin, however, in any other context, would surely mean, "than any other leaf (of any plant)," which is absurd. Perhaps there is another lacuna here. The text of this whole chapter is odd, and the last sentence, about henbane, seems out of place.

PLINY : NATURAL HISTORY

cyamum contusum cum foliis ex vino datur peculiariter contra aspidas.

- 105 LIX. Nulla tamen Romanae nobilitatis plus habet quam hiera botane. aliqui aristereon, nostri verbenacam vocant. haec est quam legatos ferre ad hostes indicavimus. hac Iovis mensa verritur, domus purgantur lustranturque. genera eius duo sunt: foliosa quam feminam putant, mas rarioribus foliis.
- 106 ramuli utriusque plures, tenues, cubitales, angulosi, folia minora quam quercus angustioraque, divisuris maioribus, flos glaucus, radix longa, tenuis. nascitur ubique in planis aquosis. quidam non distinguunt et unum omnino genus faciunt, quoniam utraque eodem effectus habeat. utraque sortiuntur Galli et praecinunt responsa, sed Magi utique circa hanc insaniunt; hac perunctos inpetrare quae velint, febres abigere, amicitias conciliare nullique non morbo
- 107 mederi. colligi debere circa canis ortum ita ne luna aut sol conspiciat, favis ante et melle terrae adpiamentum datis, circumscriptam ferro effodi sinistra manu et in sublime tolli, siccari in umbra separatim folia, caulem, radicem. aiunt, si aqua spargatur

^a See XXII. § 5.

^b Namely on the feasts of Jupiter.

^c Bostock and Riley translate as though *hanc* were understood before *febres*, but surely there is no *insania* in saying

draught. Henbane crushed with the leaves on is given in wine, especially for the poison of asps.

LIX. No plant however is so renowned among the Romans as *hiera botane* ("sacred plant"). Some call it *asistereon*, and Latin writers *verbenaca*. This is the plant which I mentioned as carried to the enemy by envoys.^a With this the table of Jupiter is swept,^b and homes are cleansed and purified. There are two kinds of it; one has many leaves and is thought to be female, the other, the male, has fewer leaves. Each kind has several sprigs that are slender, a cubit long and angular; the leaves are smaller and narrower than those of the oak; the indentations too are deeper, the blossom is grey, and the root long and slender. It grows everywhere in flat, moist localities. Some authorities do not distinguish these two kinds but make of them one only, since both have the same properties. Both kinds are used by the people of Gaul in fortune-telling and in uttering prophecies, but the Magi especially make the maddest statements about the plant: that people who have been rubbed with it obtain their wishes, banish fevers,^c win friends and cure all diseases without exception. They add that it must be gathered about the rising of the Dog-star without the action being seen by moon or sun; that beforehand atonement must be made to Earth by an offering of honey-comb and honey; that a circle must be drawn with iron round the plant and then it should be pulled up with the left hand and raised aloft; that leaves, stem and root must be dried separately in the shade. They say too that if a dining-couch is sprinkled with water in which that a plant cures fevers. The madness lies in believing that anointed persons have magical powers.

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triclinium qua¹ maduerit, lactiores convictus fieri. adversus serpentes conteritur ex vino.

- 108 LX. Est similis verbasco herba quae saepe fallit pro ea capta, foliis minus candidis, cauliculis pluribus, flore luteo. haec abiecta blattas in se contrahit ideoque Romae blattaria vocatur.

LXI. Molemonium sucum lacteum mittit conrescentem gummis modo, umidis locis. datur denarii pondus in vino.

- 109 LXII. Quinquefolium nulli ignotum est, cum etiam fraga gignendo commendetur, Graeci pentapetes aut pentaphyllon aut chamaezelon vocant. cum effoditur, rubram habet radicem. haec inarescens nigrescit et angulosa fit. nomen a numero foliorum. et ipsa herba incipit et desinit cum vite. adhibetur et purgandis domibus.

LXIII. Adversus serpentes bibitur et eius radix quae sparganion vocatur ex vino albo.

- 110 LXIV. Dauci genera quattuor fecit Petronius Diodotus, quae persequi nihil attinet, cum sint differentiae duae, probatissimi in Creta, mox in Achaia et ubicumque in siccis nati, feniculi similitudine, candidioribus foliis et minoribus hirsutisque, caule pedali recto, radice suavissimi gustus et odoris.
- 111 hoc in saxosis nascitur meridianis. reliqua genera ubique nascuntur terrenis collibus limitibusque, nec

¹ Ante qua add. in *Mayhoff*, qui XXIII. § 140, XXIV. § 90, XXVI. § 29 confert.

^a This is a strange sentence, for *eius* should naturally refer to cinquefoil, described in the last Chapter. Jan in his Index actually has : “*sparganion quinquefolii radix* 25 109.” But sparganion is a plant, bur-weed, of which Dioscorides gives an account. The last sentence of this runs : *δίδοται δὲ ἡ ῥίζα καὶ ὁ καρπὸς σὺν οἴνῳ θηριοδύκτοις*, IV. 21. The sentence in Pliny seems to be a typical piece of carelessness.

this plant has been soaked the entertainment becomes merrier. As a remedy for snake bites it is crushed in wine.

LX. There is a plant like verbascum which is *Blattaria*. often taken for it in error, but the leaves are less pale, the stems are more numerous, and the blossom is yellow. When thrown away it attracts moths to itself, and for this reason at Rome it is called blattaria, or moth verbascum.

LXI. Molemonium exudes a milky juice which *Molemonium*. thickens like gum. It grows in moist localities, the dose being one denarius given in wine.

LXII. Cinquefoil is known to everyone, being *Cinquefoil*. popular for its actually producing strawberries. The Greeks call it pentapetes, pentaphyllon, or chamaezealon. When it is dug up it has a red root, which as it dries becomes black and angular. The name is derived from the number of the leaves. The plant itself buds and sheds its leaves with the vine. It is also used in purifying houses.

LXIII. For snake bite is also given in white wine *Sparganion*. the root of the plant that is called sparganion.^a

LXIV. Four kinds of daucus ^b were distinguished *Daucus: four kinds*. by Petronius Diodotus. There is no point in giving the details of these, as there are but two species. The most highly valued grows in Crete, the next in Achaia and everywhere in dry districts; it resembles fennel, but has paler, smaller and hairy leaves, a straight stem a foot high, and a root with a very pleasant taste and smell. This kind grows on rocky soils that face the south. The other kinds grow everywhere on earthy hills and cross-paths, but

^b See *Index of Plants*.

nisi pingui solo,¹ foliis coriandri, caule cubitali, capitibus rotundis, saepe pluribus quam ternis, radice lignosa et, cum inaruit, supervacua. semen huius cumino simile, prioris milio, album, acre, odoratum omnibus et fervens. secundum priore vehementius
 112 est, ideoque parce sumi debet. si iam maxime tertium genus facere libeat, est simile staphylino, quod pastinacam erraticam appellant, semine oblongo, radice dulci. omnia haec et hieme et aestate sunt intacta quadripedi nisi post abortus. ex aliis usus seminis, ex Cretico radicis est, magis ad serpentes. bibitur e vino drachma una, datur et quadripedibus percussis.

113 LXV. Therionarca alia quam magica et in nostro orbe nascitur fruticosa foliis subviridibus, flore roseo, serpentes necat. cuicumque admota ferae et haec torporem adfert.

LXVI. Persolata,² quam nemo ignorat, Graeci arcion vocant, folia habet maiora etiam cucurbitis et hirsutiora nigrioraque et crassiora, radicem albam et grandem. haec ex vino bibitur denariorum duum
 114 pondere. LXVII. item cyclamini radix contra serpentes omnes. folia habet minora quam hedera,

¹ *Post solo lacunam indicat Mayhoff, qui est unum ex his vel est genus supplet.*

² *persolata E, vulg., Detlefsen : persollata Ianus et Mayhoff, qui § 104 coll. personatam conicit.*

^a Here we have the singular *huius*, but in the preceding sentence *reliqua genera*. Mayhoff supposes that a phrase meaning "one of them" has fallen out after *solo*. But Pliny recognises only two kinds, the second of which, summing up the *reliqua genera*, may well be referred to by *huius*. In this chapter Pliny is more than usually slipshod; Fée compares it unfavourably with the corresponding passage in Dioscorides.

only if the soil is rich; they have leaves like those of coriander, a stem a cubit high, round heads, often more than three, and a wood-like root, which when dry is worthless. Its ^a seed is like that of cummin, while that of the first kind is like millet, white, sharp, and scented and hot in all kinds. The seed of the second kind is more powerful than that of the first, and for this reason should be used sparingly. If one really desires to add a third kind, there is one like staphylinus, called wild carrot, with longish ^b seed and a sweet root. A quadruped, summer and winter, refuses to touch any of these plants except after miscarriage. Of the Cretan kind the root is used, chiefly for snake bites, of the other kinds the seed. The dose is one drachma taken in wine; it is given also to quadrupeds that have been bitten.

LXV. There is a therionarca, different from the *Therionarca* magical plant,^c that grows in our part of the world, a bushy plant with greenish leaves, a rose-coloured flower, and fatal to serpents. This plant too ^d benumbs any kind of wild creature it touches.

LXVI. Persolata, a plant everybody knows, is called *Persolata, or arcion.* by the Greeks arcion; it has leaves larger, more hairy, darker and thicker even than those of a gourd, and a white, large root. This is taken in wine, the dose being two denarii by weight. LXVII. The root of cyclamen also is beneficial for the bites of any *Cyclamen.* kind of snake. The plant has smaller, darker and thinner leaves than those of ivy, with no corners but

^b Or "oblong."

^c Mentioned in XXIV. § 163 as growing in Cappadocia and Mysia.

^d As well as the one mentioned in the other passage.

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nigrioraque et tenuiora, sine angulis, in quibus albicant maculae, caule exiguo, inani, floribus purpureis, radice lata ut rapum videri possit, cortice
 115 nigro. nascitur in umbrosis, a nostris tuber terrae vocatur, in omnibus screnda domibus, si verum est ubi sata sit nihil nocere mala medicamenta. amuletum vocant, narrantque et ebrietatem repraesentari addita in vinum. radix et siccata, scillae modo concisa reponitur. decoquitur eadem ad crassitudinem mellis; suum tamen venenum ei est, traduntque, si praegnas radicem eam transgrediatur, abortum fieri.

116 LXVIII. Est et altera cyclaminos cognomine cissanthemus, geniculatis caulibus supervacuis a priore distans, circa arbores se volvens, acinis hederæ, sed mollibus, flore candido, specioso, radice supervacua. acini tantum in usu, gustu acres et lenti. siccantur in umbra tusique dividuntur in pastillos.

LXIX. Mihi et tertia cyclaminos demonstrata est cognomine chamaecissos, uno omnino folio, radice ramosa, qua pisces necantur.

117 LXX. Sed inter prima celebratur peucedanum, laudatissimum in Arcadia, mox Samothrace. caulis ei tenuis, longus, feniculo similis, iuxta terram foliosus, radice nigra, crassa, gravi odore, sucosa. gignitur in montibus opacis, foditur exitu autumnii. placent tenerrimæ et altissimæ radices. hæc conciduntur in quaternos digitos osseis cultellis fundunt-

^a That is, "earth truffle."

^b That is, "ivy-flowered."

^c That is, "ground ivy."

with white spots; the stem is short and hollow, the blossom purple, the root so broad that it might be taken for that of the turnip, and having a dark skin. It grows in shaded spots, is called by our countrymen *tuber terrae*,^a and ought to be grown in every home if it is true that wherever it grows no evil spells do any harm. They call it “amulet”, and say that if it is added to wine intoxication comes at once. The root is also dried, cut up fine as is done with the squill, and then stored away. This is boiled down to the consistency of honey. It has however a poisonous quality of its own, and it is said that if a woman with child steps over this root she miscarries.

LXVIII. There is also another cyclamen with the surname of *cissanthemus*,^b differing from the preceding one in that it has jointed stems of no value, winds itself round trees, and bears berries like those of ivy, only soft, and a handsome, white flower; the root is of no value. The berries only are used; these are sharp to the taste and sticky. They are dried in the shade, crushed, and cut up into lozenges.

LXIX. A third kind of cyclamen has been pointed out to me with the surname of *chamaecissos*,^c which has only one leaf, and a branchy root fatal to fishes.

LXX. Among the most popular of plants is *Peucedanum* peucedanum, the most esteemed kind of which grows in Arcadia; next to this comes the one growing in Samothrace. Its stem is slender, long, like fennel, and leafy near the ground; the root is dark, thick, juicy, and with a strong smell. It grows on shaded mountains and is dug up at the close of autumn. The tenderest and deepest roots are the favourites. These are cut up with bone knives into strips four

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que sucum in umbra, capite prius et naribus rosaceo
 118 perunctis, ne vertigo sentiatur. et alius sucus in-
 venit caulibus adhaerens incisisque manans.¹
 probatur crassitudine mellea, colore rufo, odore
 suaviter gravi, fervens gustu. hic in usu contra
 serpentes² et radix et decoctum eius plurimis medi-
 camentis, suco tamen efficacissimo, qui resolvitur
 amaris amygdalis aut ruta, bibiturque³ et ex oleo
 perunctos tuetur.

119 LXXI. Ebuli quoque, quam nemo ignorat, fumo
 fugantur serpentes.

LXXII. Privatim adversatur scorpionibus pole-
 moniae radix, vel adalligata tantum, item phalangio
 ac ceteris minoribus venenatis, scorpionibus aristo-
 lochia, agaricum obolis quattuor in vini mixti cyathis
 totidem, verbenaca et phalangio cum vino aut posca,
 item quinquefolium, daucum.

120 LXXIII. Verbascum Graeci phlomon vocant. gen-
 era habet prima duo: album in quo mas intellegitur.
 alterum nigrum in quo femina. tertium genus non
 nisi in silvis invenitur. sunt folia brassicae latiora,

¹ incisisque manans *Dellefsen*: incisi quoque manant
Mayhoff: incisique manans *aut* manat *codd.*

² contra serpentes *omittunt plerique codd.*: post ruta cum a
Dellefsen.

³ *In cod. a scriptum est uriturque.*

^a Grammatically a clumsy passage, the confusion being increased by the accidental omission of *contra serpentes*, its insertion in the margin, and re-insertion afterwards in the wrong place. *Plurimis medicamentis* seems to be dative and *suco efficacissimo* ablative of description.

fingers long and pour out their juice in the shade, the cutters first rubbing their head and nostrils with rose oil lest they should feel vertigo. Another juice also is found sticking to the stems and dripping from incisions in it. It is considered good when it is of the consistency of honey, of a red colour, with a strong but pleasant smell, and hot to the taste. This is used for snake bite, as well as the root and a decoction of it, to make many remedies,^a the juice however being the most efficacious; it is made thinner ^b by bitter almonds or rue and is taken in drink, while rubbing over the body with it and oil protects people from snakes.

LXXI. The smoke of *ebulum* also,^c a plant known *Ebulum*. to everybody, drives snakes away.

LXXII. The root of *polemonia*, even when merely *Polemonia*. attached as an amulet, is specific against scorpions, and also against poisonous spiders and the other smaller venomous creatures; *aristolochia* against scorpions, or four-oboli doses of agaric in four cyathi of wine stirred up with it,^d vervain too with wine, or vinegar and water, against poisonous spiders, so also cinquefoil or *daucum*.

LXXIII. *Verbascum* is called *phlomos* by the *Verbascum*
(*phlomos*). Greeks. There are two primary kinds of it: the pale, which is thought to be male; the other is dark and is regarded as female. There is a third kind, that is found only in woods. The leaves of *verbascum*

^b See note (e) on XXIV. § 34.

^c The *quoque* suggests that the *uritur* of a in § 118 may be right. But it is perhaps as likely that a scribe was induced to write *uritur* because his eye had gone on to *quoque*.

^d This apparently is the meaning of *mixti vini*, not "mixed wine." The dosage perhaps applies also to *aristolochia*.

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- pilosa, caulis erectus, cubitali amplior. semen nigrum inutile, radix una, crassitudine digiti. nascuntur et in campestribus. silvestri folia elelisphaci,
- 121 alta, ramis lignosis. LXXIV. sunt et phlomides duae hirsutae, rotundis foliis, humiles. tertia lychnitis vocatur, ab aliis thryallis, foliis ternis aut cum plurimum quaternis crassis pinguibusque, ad lucernarum lumina aptis. aiunt in foliis eius quam feminam diximus ficus omnino non putrescere. distingui genera haec paene supervacuum est, cum sint omnia eiusdem effectus. contra scorpiones bibitur radix cum ruta ex aqua, magna amaritudine sed effectu pari.¹
- 122 LXXV. Thelyphonon herba ab aliis scorpion vocatur propter similitudinem radicis. cuius tactu moriuntur scorpiones. itaque contra eorum ictus bibitur. scorpionem mortuum si quis helleboro candido linat, revivescere aiunt. thelyphonon omnem quadripedem necat inposita verendis radice, folio quidem intra eundem diem, quod est simile cyclamino. ipsa geniculata nascitur in opacis. scorpionibus adversatur et vettonicae sucus ac plantaginis.
- 123 LXXVI. Sunt et ranis venena, rubetis maxime, vidimusque Psyllos in certamen e² patinis cande-

¹ sed effectu pari *Mayhoff cum plerisque codd.* est effectu pari *puncto post amaritudine posito Detlefsen.*

² certamen e *Mayhoff*: certamine *codd.*

^a The "lamp plant."

^b The "wick plant."

^c It seems impossible to decide whether "or" or "and" is the right word here.

^d An obscure sentence. The Psylli were a north-African tribe, snake-charmers, and supposed to be immune to poisons. The hot pans were to irritate the toads. The reading *candefactas* perhaps is due to the need of an object to *admittentes*.

are broader than those of cabbage, and hairy; the stem is upright, and more than a cubit high. The seed is black and of no use. The root is single, and of the thickness of a finger. The plants also grow in flat country. Wild verbascum has leaves like those of elelisphacus and tall, while the branches are of a woody texture. LXXIV. There are also two sorts of phlomis, both shaggy and with round leaves, growing near the ground. A third is called lychnitis,^a by some thryallis^b; it has three or at most four leaves, which are thick and fleshy, and suitable for lamp wicks. It is said that, placed in the leaves of the kind we have called female, a fig does not even begin to go bad. It is almost superfluous to distinguish these various kinds, because they all have the same properties. A draught for the sting of scorpions is made from the root and rue in water, which is as efficacious as it is bitter.

LXXV. Thelyphonon is a plant called scorpion by some because its root has the shape of one. A mere touch of it kills scorpions, and so it is taken in drink for their stings. It is said that a dead scorpion, if smeared with white hellebore, comes to life again. Thelyphonon kills every kind of quadruped if its root be applied to the genitals, the leaf indeed, which is like that of cyclamen, does so before the end of the same day. The plant itself is jointed, and grows in shaded places. Good for scorpion bite is the juice of betony or^c plantain.

LXXVI. Frogs too have their poisons, bramble-toads a virulent one, and I have seen Psylli putting them to a contest loosed from heated pans,^d and

*Remedies for
poisons of
frogs and
toads.*

My addition of *eas* implies that *candefactis eas* has been "telescoped" by a scribe into *candefactas*.

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factis ¹ eas ² admittentes, ocioire etiam quam ³ aspidum
pernicie. auxiliatur phrynon in vino pota. aliqui
neurada appellant, alii poterion,⁴ floribus parvis,
radicibus multis, nervosis, bene olentibus. LXXVII.

124 item alisma,⁵ quam alii damasonion, alii lyron
appellant. folia erant plantaginis, nisi angustiora
essent et magis laciniosa convexaque in terram, alias
etiam venosa similiter, caule simplici, tenui, cubitali,
capite thyrsi, radicibus densis, tenuibus ut veratri
nigri, acribus, odoratis, pinguibus. nascitur in
125 aquosis. alterum genus eiusdem in silvis,⁶ nigrius,
maioribus foliis. in usu radices utriusque adversus
ranas et lepores marinos drachmae pondere in vini
potu. lepori marino adversatur et cyclaminos.
veneni vim canis quoque rabidi morsus habent, contra
quos erit cynorrhodum, de quo diximus, plantago,
et ad omnes bestiarum morsus, pota atque inlita,
vettonica ex mero vetere.

126 LXXVIII. Peristereos vocatur caule alto foliato,
cacumine in alios caules se spargens, columbis admod-
um familiaris, unde et nomen. hanc habentes
negant latrari a canibus.

127 LXXIX. Proxima ab his malis venena sunt quae
sibimet ipsis homines excogitant. contra haec

¹ candefactis V², *Mayhoff*: candefactas V¹Rd *vulg.*,
Dettefsen.

² eas ego *add.*: *omittunt codd.*

³ quam *add.* *Warmington*.

⁴ poterion *Hermolaus Barbarus ex Dioscoride*: potireton
V R *Dettefsen* ²; polyrrhizon *vulg.*, *Dettefsen*.

⁵ alisma *Hermolaus Barbarus ex Dioscoride*: alcima *codd.*,
vulg., *Mayhoff*. ⁶ ulvis *Fournier*.

that though their bite brings speedier death than the bite of asps. A helpful remedy is phrynion taken in wine, a plant that some call neuras, and others poterion, having small flowers and many fibrous roots with a pleasant scent. LXXVII. Likewise alisma, which some call damasonion, others lyron. The leaves would be like those of the plantain were they not narrower, more jagged, and bent downwards; in other respects the two are alike, even in their many veins. It has a single, slender stem, a cubit high and like a thyrsus at the top, with many close-set roots, slender like those of black hellebore, acrid, scented and juicy. It grows in watery places. The other kind of the same plant is found in woods; it is darker, and has larger leaves. The roots of both kinds are used for the poison of frogs and of the sea-hare, the dose being a drachma by weight taken in wine. Cyclamen is another remedy for the poison of sea-hares. The bites of a mad dog also have a highly venomous character, a remedy for which will be found in cynorrhodum, of which I have spoken already,^a in the plantain, and for all bites of wild beasts in betony with old neat wine, taken as drink or applied locally.

LXXVIII. Peristereos is the name of a plant with *Peristereos.* a tall stem covered with leaves and sprouting out other stems at the top. It is a great favourite with doves, whence too comes its name.^b It is said that dogs never bark at those who have this plant about them.

LXXIX. Next after these plagues come the *Remedies for various poisons.* Remedies

^a See § 17 of this book.

^b The name means "dove plant."

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- omnia magicasque artes erit primum illud Homericum moly, dein Mithridatia ac scordotis.¹ et centaurium potu omnia mala medicamenta exigit per alvum, vettonicae semen in mulso aut passo, vel farina drachma in vini veteris cyathis quattuor; vomere cogendi atque iterum bibere. iis qui cotidie gustent eam nulla nocitura mala medicamenta tradunt. poto veneno aristolochia subvenit eadem mensura qua contra serpentes, quinquefolii sucus, agaricum, postquam vomuerint, denarii pondere ex aquae mulsae cyathis tribus.
- 129 LXXX. Antirrinum vocatur sive pararinon² lychnis agria simile lino, radice nulla, flore hyacinthi, semine vituli narium. et³ hoc perunctos venustiores fieri nec ullo malo medicamento laedi posse, aut si quis id in
- 130 brachchiali habeat, arbitrantur Magi. LXXXI. similiter ea quam eupliam vocant traduntque ea perunctos commendationis esse famae. artemisiam quoque secum habentibus negant nocere mala medicamenta aut bestiam ullam, ne solem quidem. bibitur et haec ex vino adversus opium. alga⁴ privatim potens traditur, potatur et adversus ranas.
- 131 LXXXII. Pericarpum bulbi genus est. duae eius species: cortice rubro alterum, alterum nigro papaveri simile, sed vis maior quam priori, utrique

¹ *Sic dist. Mayhoff.*

² pararinon a, *Detlefsen* : anarrinon *Sillig post Hermolaum Barbarum, Mayhoff* : paranarrhinon *Ianus* : varia *codd.* sed anarrinon *Index Plinianus.*

³ et *Mayhoff post Caesarium* : ex *codd.*

⁴ alga *Detlefsen* : alcima *Mayhoff* : alligata *vulg.* : algam *codd.*

^a See *Odyssey* X. 305.

^b See § 6 of this book. The reference may be to the plant mithridatia of § 62.

for all these and for sorceries will be found in the famous moly^a of Homer, which is the best, next the antidotes of Mithridates,^b and also scordotis. Centaury too taken in drink evacuates by stool all poisonous drugs, as does the seed of betony taken in honey wine or in raisin wine, or drachma doses of the powder may be taken in fourcyathi of old wine; but the patients must be made to vomit and take a second draught. It is said that those who take this powder every day will not be hurt by any noxious drugs. When poison has been drunk help is given by aristolochia, the dose being the same as for snake bites, by the juice of cinquefoil, and by agaric taken after previous vomiting, the dose being a denarius by weight in three cyathi of hydromel.

LXXX. Antirrinum or pararinon is the name given to wild lychnis, a plant like flax, having no root, a flower like that of the hyacinthus, and seed like the muzzle of a calf. The Magi hold that those rubbed with it improve in beauty and can be hurt by no noxious drug; likewise if anyone wear it on the arm as an amulet. LXXXI. They say the same of the plant they call euplia, and maintain that those rubbed with it win a finer reputation. They also say that those carrying artemisia about them are not hurt by noxious drugs, or by any wild beast, and not even by the sun. This plant is also taken in wine to counteract the effects of opium. Seaweed is said to be a specific, and it is also taken in drink for the poison of frogs.

LXXXII. Pericarpum is a kind of bulb. There are two species of it; one has a red outer skin, the other is like the dark poppy, but its properties are stronger than those of the former; both however

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autem excalfaciendo.¹ ideo contra cicutam datur, contra quam et tus et panaces, chironium praecipue. hoc et contra fungos.

- 132 LXXXIII. Verum et generatim membratimque singulis corporum morbis remedia subtexemus orsi a capite. alopecias emendat nymphaeae Heracliae² radix, sive cum pice sive una³ ea trita⁴ inlinantur. polythrix distat a callitriche quod iuncos albos habet et folia plura maioraque. frutice quoque maior est, 133 defluentem capillum confirmat et densat. LXXXIV. item lingulaca circa fontes nascens, cuius radix admixta combusta teritur cum adipe suis nigrae, id quoque excipitur, ut eius suis quae numquam peperit; sol deinde plurimum confert inlita. similis usus est cyclamini radicis. porriginem veratri radix tollit 134 in oleo decocta vel in aqua. capitis dolori medetur panacis omnium generum radix in oleo contrita, aristolochia, hiberis adalligata hora vel diutius, si pati possit, comitante balinei usu. medetur et daucum. purgat autem et cyclaminos cum melle in nares addita, et ulcera capitis sanat inlita. medetur et peristereos.
- 135 LXXXV. Cacalia⁵ sive leontice vocatur semen margaritis minutis simile dependens inter folia grandia, in montibus fere. huius grana xv in oleo

¹ excalfaciendo *codd.*, *Detlefsen*: in excalfaciendo *C. F. W. Müller, Mayhoff*.

² Heracliae *Sillig, Mayhoff*: e lacte *Detlefsen*: et cicutae *vulg.*: lacitae *aut* lacite *aut* ea cute *codd.*

³ sive cum pice sive una *ego*: sive una (*cum lacuna*) *Mayhoff, qui* cum pice sive per se *ex Dioscoride supplet*: siveva *plerique codd.*

⁴ trita *Ianus, Detlefsen, Mayhoff*: tritae (*trite*) *codd.*

⁵ cacaliae *coni. Mayhoff*: fortasse omissum cui ante semen.

are warming. For this reason the plant is administered to counteract hemlock, as is also frankincense and panaces, and chironium in particular. The last is also used for poisoning by fungi.

LXXXIII. But we will go on to add also the various kinds of remedies for each disease attacking the various parts of the body, beginning with the head. Mange is cured by the root of the Heraclian water-lily, ground up and applied, either with pitch or by itself. Polythrix differs from callithrix in having pale, rush-like shoots and more numerous and larger leaves. The main stem too is larger. It strengthens and makes to grow more thickly hair that tends to fall out. LXXXIV. Lingulaca too may be used, that grows around springs, the root of which, reduced to ashes, is beaten up mixed with the lard of a black sow, care being taken that it is one which has never farrowed; and then it is a great advantage if the application is made in the sunshine. The root of cyclamen is used in a similar way. Dandruff is removed by the root of hellebore boiled down in oil or in water. Headache is cured by the root of any kind of panaces crushed in oil, by aristolochia, by hiberis attached for an hour, or longer if the patient can stand it, a bath being taken at the same time. Daucum also is a cure. Cyclamen too with honey, if pushed into the nostrils, clears the head, sores on which are healed by the same used as ointment. Peristereos also is effective treatment.

Remedies for diseases attacking the various parts of the body: the head.

Other remedies for the head.

LXXXV. Cacalia or leontice is the name of a plant with seeds like tiny pearls hanging down among large leaves, and mostly found on mountains. Fifteen grains of it are steeped in oil, and with

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macerantur atque ita adversus capillos¹ caput inungitur.

LXXXVI. Fit et ex callitriche sternumentum. folia sunt lenticulae, caules iunci tenuissimi radice minima. nascitur opacis et umidis, gustatu fervens.

136 LXXXVII. Hysopum in oleo contritum phthiriasi resistit et prurigini in capite. est autem optimum Cilicium e Tauro monte, dein Pamphylium ac Zmyrnaeum. stomacho contrarium purgat cum fico sumptum per inferna, cum melle vomitionibus. putant et serpentium ictibus adversari tritum cum melle et sale et cumino.

137 LXXXVIII. Lonchitis non, ut plerique existimaverunt, eadem est quae xiphion aut phasganion, quamquam cuspidi similis semine: habet enim folia porri rubentia ad radicem et plura quam in caule, capitula personis comicis similia, parvam exserentibus linguam, radicibus praelongis. nascitur insitientibus.

138 LXXXIX. e diverso xiphion et phasganion in umidis. cum primum exit, gladii praebet speciem caule duum cubitorum, radice ad nucis abellanae figuram fimbriata, quam effodi ante messes oportet, siccari in umbra. superior pars eius cum ture trita, aequo pondere admixto vino, ossa fracta capite² extrahit aut quicquid in corpore suppurat, vel si calcata sint ossa
139 serpentis; eadem contra venena efficax. caput in

¹ adversus capillos a, *Detlefsen*: adverso capillo *ceteri codd.*, *Mayhoff*.

² *Mayhoff* (Appendix) e *add.*

^a I have translated *Mayhoff*'s text without any confidence that it is correct, nor is *Detlefsen*'s, with a comma before, not after, *serpentis*, any more attractive, for *Pliny*'s usual phrase is *contra serpentes*. But cf. XXIV 61. The position of *serpentis* and the plural *venena* are other objections. Now *ossa serpentis* is odd. My friend Mr. John Chadwick tells me

this the head is rubbed in the contrary way to the hair.

LXXXVI. From *callithrix* also is made a snuff. This plant has the leaves of the lentil; the stems are very slender rushes and the root is very small. It grows in shady, moist places, and has a hot taste.

LXXXVII. *Hyssop* crushed in oil is good for phthiriasis and itch on the scalp. The best comes from Mount Taurus in Cilicia, the next best from Pamphylia and Smyrna. Upsetting the stomach, it purges by stool if taken with figs, by vomitings if taken with honey. Pounded with honey, salt, and cummin it is also supposed to counteract the poison of snake bites.

LXXXVIII. *Lonchitis* is not, as most people have thought, the same plant as *xiphion* or *phasganion*, although the seed is like a spear point; for it has leaves like those of the leek, reddish near the root and more numerous than on the stem, little heads like the masks of comedy, which put out a small tongue, and very long roots. It grows in thirsty soils. (LXXXIX.) *Xiphion* or *phasganion* on the other hand grows in moist soils. When it first leaves the ground it presents the appearance of a sword, has a stem two cubits high, and a fringed root like a filbert, which must be dug up before harvest and dried in the shade. The upper part of it, beaten up with frankincense and mixed with an equal quantity by weight of wine, extracts bone splinters from the head and all suppurating matter in the body, or any snake bones that have been trodden on; the plant also counteracts poisons.^a Headache is relieved by

that a snake's skeleton would make a nasty wound if trodden on. That may be so, but would a person wearing sandals

PLINY : NATURAL HISTORY

dolore veratro in oleo vel rosaceo decocto tritoque ungui convenit, peucedano ex oleo vel rosaceo et aceto. tepidum hoc prodest et doloribus qui plerumque ex dimidia parte capitis sentiuntur et vertigini. perungunt et radice eius sudoris causa eliciendi, quoniam caustica vis ei est.

- 140 XC. Psyllion alii cynoides, alii crystallion, alii sicelicon, alii cynomyiam appellant, radice tenui supervacua, sarmentosum, fabae granis in cacuminibus, foliis canino capiti non dissimilibus, semine autem pulici, unde et nomen. hoc in baxis, ipsa herba in vineis invenitur. vis ad refrigerandum et discutiendum ingens. semen in usu. fronti inponitur in dolore et temporibus ex aceto et rosaceo aut posca.
- 141 ad cetera inlinitur. acetabuli mensura sextarium aquae densat ac contrahit; tunc terere oportet et crassitudinem inlinere cuicumque dolori et collectioni inflammationique. vulneribus capitis medetur aristolochia, fracta extrahens ossa et in alia quidem parte corporis sed maxime capite, similiter plistolochia. thryselinum est non dissimile apio. huius radix commanducata purgat capitis pituitas.
- 142 XCI. Oculorum aciem centaurio maiore putant adiuvari si addita aqua foveantur, suco vero minoris cum melle culices, nubeculas, obscuritates

often cut himself on a snake's skeleton? He might however easily run a thorn into his foot during a cross-country walk. The corresponding passage in Dioscorides (IV 20) has ἀκίδας καὶ σκόλοπας ἐπισπᾶσθαι. It is conjectural, but just possible, that *serpentis* has replaced an original *spina* because the *ossa* of the first clause of this sentence was repeated a little later on unconsciously by a careless scribe. Then the sense would be "if a thorn has been trodden on."

All this is so conjectural that I do not feel justified in changing the text.

rubbing with hellebore beaten up and boiled down in oil or rose oil, or by peucedanum in oil or rose oil and vinegar. The latter made lukewarm is good for the pains generally felt on one side of the head, and also for giddiness. The body is rubbed over with the root to promote perspiration, for it has heating properties.

XC. Psyllion is called by some cynoides, by others chrystallion, by others sicelicon, and by others cynomyia; it has a slender root of no use in medicine, numerous twigs with grains like beans^a at the point, leaves not unlike a dog's head and seed not unlike a flea: hence too its name. The seed is in berries, and the plant itself is to be found in vineyards. Its cooling and dispersing properties are very strong. The part used is the seed. For headache it is applied to the forehead and temples in vinegar and rose oil or in vinegar and water. For other purposes it is used as liniment. An acetabulum thickens and coagulates a sextarius of water; then it should be beaten up and the paste applied as liniment to any pain, gathering or inflammation. Wounds in the head are healed by aristolochia, which also brings away fragments of bone in other parts of the body, but especially in the head; the same with plistolochia. Thryselinum is not unlike celery. The root of it chewed clears away catarrhs of the head.

XCI. It is supposed that the sight is improved by the greater centaury if the eyes are fomented by an infusion of it in water; while by the juice of the lesser centaury with the addition of honey gnats are

*Remedies
the eyes.*

^a This is a very strange phrase, and Fée calls the description absurd.

PLINY : NATURAL HISTORY

- discuti, cicatrices extenuari, albugines quidem etiam iumentorum sideritide. nam chelidonia supra dictis omnibus mire medetur. panacis radicem cum polenta epiphoris inponunt. hyoscyami semen et bibunt obolo, tantundem meconii adicientes vinumque ad epiphoras inhibendas. inungunt et gentianae sucum quem collyriis quoque acrioribus pro meconio
143 miscent. facit claritatem et euphorbeum inunctis. instillatur plantaginis sucus lippitudini. caligines aristolochia discutit, hiberis adalligata capiti, quinquefolium. epiphoras et si qua in oculis vitia sunt emendat verbascum. epiphoris inponitur peristereos ex rosaceo vel aceto. ad hypochysis et caliginem cyclamini¹ pastillos diluunt, peucedani sucum, ut diximus, ad claritatem et caligines cum meconio et rosaceo. psyllion inlitum fronti epiphoras suspendit.
144 XCII. Anagallida aliqui acoron² vocant. duo genera eius: mas flore phoeniceo, femina caeruleo, non altiores palmo, frutice tenero, foliis pusillis rotundis, in terra iacentibus. nascuntur in hortis et aquosis. prior floret caerulea. utriusque sucus oculorum caliginem discutit cum melle et ex ictu

¹ cyclamini d T, *Mayhoff*: cyclameni V R: cyclamen in E, *Detlefsen*.

² acoron E *vulg.*, *Detlefsen*, *Mayhoff*: corchoron *Hermolaus Barbarus* e *Dioscoride*.

^a The Plinian use of *nam* = *sed*.

^b In this part of the text the punctuation of *Mayhoff* has been adopted.

^c *Hypochysis* is a Greek accusative plural.

^d A verb seems to be missing here. *Mayhoff* suggests *et inlinunt*.

removed, cloudiness and films are dispersed, and scars smoothed out; also that albugo even of draught animals is made better by sideritis. But ^a chelidonia is a wonderful cure for all the above-mentioned eye troubles. The root of panaces with pearl barley is applied to the eyes for fluxes. For checking such fluxes the seed of henbane is taken in wine in doses of an obolus with the same amount of poppy juice. Juice of gentian too is used as ointment, and it is also used instead of poppy juice as an ingredient of the more pungent eye salves. Euphorbeum too improves the vision of those whose eyes are anointed with it. The juice of the plantain is dropped into the eyes for ophthalmia. Films are dispersed by aristolochia, by hiberis attached to the head, and by cinquefoil.^b Fluxes and eye-diseases generally are made better by verbasum. To fluxes is applied peristereos in rose oil or vinegar. For cataract ^c and film lozenges of cyclamen are dissolved <and applied> ^d; the juice of peucedanum, as we have said, poppy juice and rose oil being added, is good for improving the vision and for films. Psyllion rubbed on the forehead arrests fluxes.

XCII. Some call the anagallis, acoron. There are two kinds of it: the male with a scarlet flower, and the female with a blue one; neither is more than a span in height, the stem being tender, and the leaves tiny, round and lying on the ground. They grow in gardens and on moist ground. The blue-flowered kind blossoms first. The juice of either kind, applied with honey, disperses film on the eyes, suffusions of blood from a blow, and reddish argema ^e; the results

^e For *argema*, a small white ulcer, see list of diseases.

PLINY : NATURAL HISTORY

cruorem et argema rubens, magis cum Attico melle inunctis. pupillas dilatat, et ideo hac inunguntur ante quibus paracentesis fit. iumentorum quoque oculis medentur. sucus caput purgat per nares infusus, ita ut deinde vino colluatur. bibitur et
 145 contra angues suci drachma in vino. mirum quod feminam pecora vitant aut, si decepta similitudine—flore enim tantum distant—degustavere, statim eam quae asyla appellatur in remedium¹ quaerunt. a nostris felis oculus² vocatur. praecipiunt aliqui effossuris ante solis ortum, priusquam quicquam aliud loquantur, salutare eam, sublatam exprimere, ita praecipuas esse vires. de enphorbeae suco satis dictum est. lippitudini, si tumor erit, absinthium cum melle tritum, item³ vettonicae farina conveniet.
 146 XCIII. Aegilopas sanat herba eodem nomine quae in hordeo nascitur, tritici folio, semine contrito cum farina permixta inpositaque vel suco. exprimitur hic e caule foliisque praegnantibus dempta spica et in trimestri farina digeritur in pastillos.

¹ remedium (i.e. remediū) *Mayhoff*: remedia *Detlefsen*, *codd.*: remedio *vulg.*

² felis oculus *Detlefsen*, *Mayhoff*: ferus oculus *vulg.*: felix oculus *Urlichs*: feris oculis *codd.*

³ item *E Detlefsen*: item cum *plerique codd.* et *Mayhoff*, qui *lacunam post cum indicat, excidisse putat vino. Brakman supplet vetere mero.*

^a The subject of *colluatur* is apparently *sucus*. The subject of passive *colluo* is normally the thing cleansed (nose), not the

are better if the ointment is made with Attic honey. It dilates the pupils, and so these are smeared with it before perforation for cataract. These plants also cure eye diseases in draught animals. The juice also clears the head if poured through the nostrils, but it ^a must be rinsed out afterwards with wine. A drachma dose of the juice is also taken in wine for snake bites. It is a wonderful thing that cattle avoid the female plant, or if deceived by the resemblance—for the only difference is in the flower—they have partaken of it, they at once seek as a remedy the plant called asyla. We Romans call it “cat’s-eye”. Some instruct the diggers to say nothing until they have saluted it before sunrise, and then to gather it and extract the juice, for so they say its efficacy is at its greatest. About the juice of euphorbea ^b enough has been said. Ophthalmia, if there is swelling, will be benefited by wormwood beaten up with honey, and also by powdered ^c betony.

XCIII. Aegilops ^d is cured by the plant of the same name, which grows among barley and has a leaf like that of wheat; either the seed may be reduced to powder, mixed with flour and applied, or the juice may be used. This is extracted from the stem and juicy leaves after taking away the ears, and then it is worked into lozenges with the flour of three-month wheat.

thing rinsed away (juice) and possibly the subject has been left vague, e.g. *nasus* implied in *nares*. But see § 166.

^b See § 78 of this book.

^c The emendation of Mayhoff would mean: “and also powdered betony with wine.”

^d Aegilops the disease is a lacrimal fistula.

PLINY : NATURAL HISTORY

- 147 XCIV. Aliqui ¹ et mandragora utebantur; postea
 abdicatus est in hac curatione. epiphoris, quod
 certum est, medetur et oculorum dolori radix tusa
 cum rosaceo et vino. nam sucus multis oculorum
 medicamentis miscetur. mandragoran alii circaeon
 vocant. duo eius genera; candidus qui et mas, niger
 qui femina existimatur, angustioribus quam lactucae
 foliis, hirsutis et caulibus, radicibus binis ternisve
 148 cubitalibus. ferunt mala abellanarum nucum magni-
 tudine et in his semen ceu pirorum. hoc albo alii
 arsena, alii morion, alii hippophlomon vocant. huius
 folia alba, alterius ³ latiora ut lapathi sativae.
 effossuri cavent contrarium ventum et tribus circulis
 ante gladio circumscribunt, postea fodiunt ad
 occasum spectantes. sucus fit et e malis et caule
 deciso cacumine et e radice punctis aperta aut
 decocta. utilis haec vel surculo. concisa quoque in
 149 orbiculos servatur in vino. sucus non ubique in-

¹ aliqui *codd.*: antiqui *Mayhoff*, qui § 37, 53, 57, XX 52, XXIII 97, 139, *alios locos confert*.

² *rufulis plerique codd.*, *Dellefsen*, *Mayhoff*; *nigris foris* (*e Dioscoride*) *Hermolaus Barbarus*.

³ *Post alterius supplet* (*e Dioscoride*) *foliis Mayhoff*: quam alterius *Hermolaus Barbarus*.

^a *Mayhoff's* emendation would mean "of old," "in early days."

^b *Nam* here seems to be used in its Plinian sense, but the ordinary meaning of "for" would not spoil the logic of the passage.

^c The *nigris foris*, "black outside," of *Hermolaus Barbarus*, was suggested by *Dioscorides* IV. 75, μέλαινα κατὰ τὴν ἐπιφά-

XCIV. Some ^a physicians used to employ the mandrake also; afterwards it was discarded as a medicine for the eyes. What is certain is that the pounded root, with rose oil and wine, cures fluxes and pain in the eyes. But ^b the juice is used as an ingredient in many eye remedies. Some give the name *circacon* to the mandrake. There are two kinds of it: the white, which is also considered male, and the black, considered female. The leaves are narrower than those of lettuce, the stems hairy, and the roots, two or three in number, reddish,^c white inside, fleshy and tender, and almost a cubit in length. They bear fruit of the size of filberts, and in these are seeds like the pips of pears. When the seed is white the plant is called by some *arsen*,^d by others *morion*, and by others *hippophlomos*. The leaves of this mandrake are whitish, broader than those of the other,^e and like those of cultivated *lapathum*. The diggers avoid facing the wind, first trace round the plant three circles with a sword, and then do their digging while facing the west. The juice can also be obtained from the fruit, from the stem, after cutting off the top, and from the root, which is opened by pricks or boiled down to a decoction. Even the shoot of its root can be used, and the root is also cut into round slices and kept in wine. The juice is not found

*Mandrake
for the eyes,
etc.*

νειαν, ἔνδοθεν δὲ λευκαί. But even if *foris* can represent *κατὰ τὴν ἐπιφάνειαν*, *nigris foris* was most unlikely to be corrupted to *rufulis*. The word μέλας often means "of the colour of port wine," and *rufulus* is not very far away from that.

^a "Male," Greek ἄρσην. Fée thinks that the *morion* was not the mandrake but *Atropa belladonna*.

^e After *alterius* we can understand *foliis*. It is not necessary to insert it, nor to add *quam* before *alterius*.

PLINY : NATURAL HISTORY

venitur sed, ubi potest, circa vindemias quaeritur. odor gravis ei, set¹ radiceis et mali gravior ex albo. mala matura in umbra siccantur. sucus ex his sole densatur, item radiceis tusae vel in vino nigro ad tertias decoctae. folia servantur in muria, efficacius
 150 albi.² rore tactorum³ sucus pestis est. sic quoque noxiae vires. gravedinem adferunt etiam olfactu, quamquam mala in aliquis terris manduntur, nimio tamen odore obmutescunt ignari, potu quidem largiore etiam moriuntur. vis somnifica pro viribus bibentium. media potio cyathi unius. bibitur et contra serpentes et ante sectiones punctionesque, ne sentiantur. ob haec satis est aliquis somnum odore quaesisse. bibitur et pro helleboro duobus obolis in mulso⁴—efficacius helleborum—ad vomitiones et ad bilem nigram extrahendam.

¹ ei, set *Dellefsen post Hard. et cod. Dal.*; ei, ut et *Mayhoff*: eius et *codd.*

² efficacius albi. rore *Urlichs et Dellefsen*: efficacius; salsus rore *Mayhoff*: albus non albi *codd.*

³ tactorum *Dellefsen*: tantum *Mayhoff, codd.*: pro rore tantum *coni.* rorulenti *Urlichs.*

⁴ *Sic distinxit Mayhoff.*

^a Dioscorides, IV. 75 (Wellmann) has: ἔστι δὲ ἐνεργέστερος τοῦ ὁποῦ ὁ χυλός. οὐκ ἐν παντὶ δὲ τόπῳ φέρουσιν ὅπὸν αἱ ῥίζαι· ὑποδείκνυσιν δὲ τὸ τοιοῦτον ἡ πείρα. Our two authorities differ here; there seems nothing in Pliny to correspond to ἡ πείρα.

^b What we call "red" wine.

^c Ulrich's emendation would give roughly the same sense; Mayhoff's would mean: "more effectively in brine; juice merely salted by the dew is deadly." Mayhoff compares *ros salsus* (XXVII § 71), but the emendation is not happy. I think that *rore est* is really a parenthesis. If so, *sic* is much more natural.

^d Possibly, "Its power to induce sleep depends upon the resistance (reaction?) of the patient."

everywhere, but where it can be found it is looked ^a for about vintage time. It has a strong smell, but stronger when the juice comes from the root or fruit of the white mandrake. The ripe fruit is dried in the shade. The fruit juice is thickened in the sun, and so is that of the root, which is crushed or boiled down to one third in dark ^b wine. The leaves are kept in brine, more effectively those of the white kind. The juice of leaves that have been touched by dew are deadly.^c Even when kept in brine they retain harmful properties. The mere smell brings heaviness of the head and—although in certain countries the fruit is eaten—those who in ignorance smell too much are struck dumb, while too copious a draught even brings death. When the mandrake is used as a sleeping draught the quantity administered should be proportioned to the strength of the patient,^d a moderate dose being one cyathus. It is also taken in drink for snake bite, and before surgical operations and punctures to produce anaesthesia. For this purpose some find it enough to put themselves to sleep by the smell.^e A dose of two oboli of mandrake is also taken in honey wine instead of hellebore—but hellebore is more efficacious^f—as an emetic and to purge away black bile.

^e A clear indication, if one were needed, that the ancients used such anaesthetics, at the best very poor ones, as they possessed.

^f The usual punctuation would give: "Hellebore is more efficacious as an emetic and purge of black bile." The punctuation of Mayhoff is neat, perhaps too neat for Pliny; but we must take into account a feature of Pliny's style not generally recognised—his habit of making parenthetical remarks. This habit sometimes causes misunderstandings, because a reader may easily fail to observe an instance.

- 151 XCV. Cicuta quoque venenum est, publica Atheniensium poena invisā, ad multa tamen usus non omittendi. semen habet noxium, caulis autem et viridis estur a plerisque et in patinis. levis hic et geniculatus ut calami, nigricans, altior saepe binis cubitis, in cacuminibus ramosus, folia coriandri teneriora, gravi odoratu,¹ semen aneso crassius, radix concava, nullius usus. semini et foliis refrigeratoria vis, sic et necat. incipiunt algere ab extremitatibus
- 152 corporis. remedio est, priusquam ad vitalia perveniat, vini natura excalfactoria. sed in vino pota inremediabilis existit. succus exprimitur foliis floribusque, tum enim maxime tempestivus est.² melior semine trito expressus et sole densatus in pastillos. necat sanguinem spissando—haec altera vis—et ideo
- 153 sic necatorum maculae in corporibus apparent. ad dissolvenda medicamenta utuntur illo pro aqua. fit ex eo et ad refrigerandum stomachum malagma. praecipuus tamen est ad cohibendas epiphoras aestivas oculorumque dolores sedandos circumlitus.³ miscetur collyriis, et alias⁴ omnes rheumatismos cohibet. folia quoque tumorem omnem doloremque
- 154 et epiphoras sedant. Anaxilaus auctor est mammas a virginitate inlitas semper staturas. quod certum

¹ gravi odoratu *plerique codd.*, *Dellefsen* : *gravia Mayhoff*, qui *graviora coni.*

² *Ab est usque ad ideo sic distinguit Mayhoff*, qui vis ei — pro vis —et scribit.

³ circumlitus *E vulg.*, *Mayhoff* : circumlitu *Ianus*, *Dellefsen* : circumlitum *multi codd.*

⁴ alias *Sillig*, *Dellefsen*, *Mayhoff* : alios *codd.*

XCV. Hemlock too is poisonous, a plant with a bad name because the Athenians made it their instrument of capital punishment, but its uses for many purposes must not be passed by. It has a poisonous seed, but the stem is eaten by many both as a salad and when cooked in a saucepan. This stem is smooth, and jointed like a reed, of a dark colour, often more than two cubits high, and branchy at the top; the leaves resemble those of coriander, but are more tender, and of a strong smell; the seed is coarser than that of anise, the root hollow and of no use. The seed and leaves have a chilling quality, and it is this that causes death; the body begins to grow cold at the extremities. The remedy lies in using the warming nature of wine before the vital parts are reached; but taken in wine hemlock is invariably fatal. A juice is extracted from the leaves and blossom, for the best time to do so is when the hemlock is in flower. A better juice is extracted from the crushed seed and thickened in the sun for making into lozenges. It causes death by thickening the blood—this is its other outstanding property—and for this reason spots are to be seen on the bodies of those who have been killed in this way. This juice is used instead of water as a solvent for drugs. There is also made from it a poultice to cool the stomach. Its chief use however is as a local application round the eyes to check summer fluxes and to allay pains in them. It forms an ingredient of eye salves, and it checks all catarrhs generally. The leaves also relieve every kind of swelling, pain or flux. Anaxilaus is responsible for the statement that if the breasts are rubbed with hemlock from adult maidenhood onwards they will always remain firm.

*Hemlock for
the eyes, etc.*

est, lac puerperarum mammis inposita extinguit
veneremque testibus circa pubertatem inlita.
remedia in¹ quibus bibenda censetur non equidem
praeceperim. vis maxima natae Susis Parthorum,
mox Laconicae, Creticae, Asiaticae, in Graecia vero
Megaricae, deinde Atticae.

- 155 XCVI. Cremnos agrios gremias tollit oculorum
inpositus, tumorem quoque polenta addita.

XCVII. Nascitur vulgo molybdaena, id est plum-
bago, etiam in arvo, folio lapathi, crassa, hispida.
hac commanducata si oculus subinde lingatur, plum-
bum, quod est genus vitii, ex oculo tollitur.

XCVIII. Capnos trunca,² quam pedes gallinacios
vocant, nascens in parietinis et saepibus, ramis
tenuissimis sparsisque, flore purpureo, folio³ viridi,
suo caliginem discutit, itaque in medicamenta
oculorum additur.

- 156 XCIX. Similis et nomine et effectum sed alia est
capnos fruticosa, praetenera, foliis coriandri, cinera-
cei coloris, flore purpureo. nascitur in hortis et

¹ remedia in *Mayhoff*: remedio *Dellefsen*: remedia multi
codd.

² trunca *Ianus*, *Dellefsen*, *Mayhoff*: truma aut truna *codd.*:
prima *vulg.*

³ folio viridi *coni.* *Mayhoff*: viridis *Dellefsen*, *Mayhoff* in
textu, *codd.*

⁶ Although there is no trace of it in the MSS, *radice* seems to
have fallen out either before or after *crassa*. The former
would give: "with a thick and hairy root," the latter:
"hairy and with a thick root."

^b That is, rubbed lightly. But Pliny may mean that the
person giving the treatment should chew a wad of the plant,
pausing now and then to lick the patient's eye. One might
emend to *illinsur*, but it is very unlikely that so common a

What is certain is that an application of hemlock to the breasts of women in childbed dries up their milk, and to rub it on the testicles at the time of puberty acts as an antaphrodisiac. I should not like to give directions about remedies in which hemlock is recommended to be taken by the mouth. The most powerful hemlock grows at Susa in Parthia; the next in Laconia, Crete and Asia; in Greece however the strongest is found around Megara, after which comes that of Attica.

XCVI. An application of wild cremnos to the eyes removes rheum, and with the addition of pearl barley reduces swellings. *Other remedies for the eyes.*

XCVII. Molybdaena, that is plumbago, grows everywhere, even on cultivated land; it has a leaf like that of lapathum and is thick ^a and hairy. If the eye is licked ^b occasionally with this plant when chewed, there is removed the species of eye trouble called lead.

XCVIII. Capnos trunca,^c the popular name of which is chicken's feet, growing among ruins and on wall-banks, has very slender branches which are far apart, a purple flower and green leaves; its juice disperses films, and so it is an ingredient of eye salves.

XCIX. Similar both in name and in its properties, though a different plant, is the bushy capnos, which is very delicate, and has the leaves of coriander, the colour of ashes, and a purple blossom. It grows in

medical term as this would be changed to anything so strange as *lingatur*. The MSS. read either this or *elingatur*, the *e*- coming from the final *-e* of *subinde*. For *plumbum* see list of diseases.

^c "Lopped" or "maimed fumitory," in contrast with the *capnos fruticosa* of § 156.

segetibus hordeacis. claritatem facit inunctis oculis delacrimationemque ceu fumus, unde nomen. eadem evolsas palpebras renasci prohibet.

- 157 C. Acoron iridis folia habet, angustiora tantum et longiore pediculo, radices nigras minusque venosas, cetero et has similes iridis, gustu acres, odore non ingratas, ructu faciles. optumae Daspetiaca¹ e Galatia, mox Creticae, sed plurimae in Colchide iuxta Phasin amnem et ubicumque in aquosis. recentibus virus maius quam vetustis, Creticae candidiores Ponticis. siccantur, ut iris,² in umbra digitalibus frustis. nec non inveniuntur qui oxymyr-sinae radicem acoron vocant, ideoque quidam hanc acorion vocare malunt. vis ei ad calfaciendum extenuandumque efficax,³ contra suffusiones et caligines oculorum, suco eiusdem poto contra serpentes.

- 159 CI. Cotyledon parvula herba est incauliculo tenero, pusillo folio,⁴ pingui, concavo ut coxendices. nascitur in maritimis petrosisque viridis⁵; radice olivae modo rotunda. oculis medetur suco. est aliud genus eiusdem sordidis foliis, latioribus densioribusque circa radicem velut oculum cingentibus, asperrimi

¹ Daspetiaca *Ianus, Dellefsen, Mayhoff*: Daspetiace V: Daspetice d: Daepetiace R: Despe ie E.

² ut iris *Mayhoff*: vere *Dellefsen*: utris *codd.*

³ *Comma non post sed ante efficax ponit Mayhoff.*

⁴ folio e *Dioscoride add. Hermolaus Barbarus.*

⁵ viridis *Dellefsen, codd., vulg.*: umidis *Mayhoff.*

^a The Greek for smoke is *καπνός*.

^b Apparently not known. Pliny seems to have wrongly read some Greek word or words.

^c The adjective *viridis* is nearly always used of a clean, fresh green. Cf. *vireo* and contrast *sordidis* a little lower down.

gardens and crops of barley. Used as ointment for the eyes it improves the vision and, like smoke, produces tears, and to this fact it owes its name.^a It also prevents eyelashes that have been pulled out from growing again.

C. Acoron has the leaves of the iris, only narrower and with a longer foot-stalk; it has dark roots and less veined, though in other respects these too are like those of the iris, pungent to the taste, with a not unpleasant smell, and carminative. The best come from † Daspetos † ^b in Galatia, then come Cretan roots, but they are found most abundantly in Colchis near the river Phasis and wherever there are watery districts. Fresh roots have a stronger smell than stale, and the Cretan are paler than those of Pontus. They, like the iris, are dried in the shade in slices a finger in length. There are to be found those who give the name of acoron to the root of oxymyrsine, and for this reason some prefer to call this plant acorion. It has powerful properties as a calorific and discutient, is good for cataract and dimness of the eyes, and its juice is taken internally for snake bites.

CI. The cotyledon is a tiny plant on a tender little stem, with a very small fleshy leaf, which is concave like the hip joint. It grows in maritime and rocky places, fresh green^c in colour, and with a root that is oval like an olive. The juice is medicine for the eyes. There is another kind of cotyledon with dirty-green leaves, which are broader and closer together than those of the other, spread round the root as though it were an eye^d; the taste is very

*Acoron for
the eyes, etc.*

*Cotyledon for
the eyes.*

^a Perhaps here a bud, with the sepals surrounding it. But Littré has: "entourée comme l'oeil l'est de l'orbite."

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gustus, longiore caule, sed pergracili. usus ad eadem quae iridi.¹

160 CII. aizoi duo genera : maius in fictilibus vasculis seritur, quod aliqui buphthalcon appellat, alii zoophthalcon, alii stergethron, quod amatoris conveniat, alii hypogeson, quoniam in subgrundiis fere nascitur, sunt qui ambrosiam potius vocant et qui amerimnon, Italia sedum magnum aut oculum aut digitillum. alterum minusculum, quod erithales vocant, alii trithales, quia ter floreat, alii erysithales, aliqui isoetes, Italia sedum, atque² aizoum utrumque, quoniam vireat semper, aliqui

161 sempervivum. maius et cubiti altitudinem excedit, crassitudine plus quam pollicari. folia in cacumine linguae similia, carnosa, pingua, larga suco, latitudine pollicari, alia in terram convexa, alia stantia, ita ut ambitu effigiem imitentur oculi. quod minus est in muris parietinisque et tegulis nascitur, fruticosum a radice et foliosum usque ad cacumen, foliis angustis, mucronatis, sucosis, palmum alto caule. radix inutilis.

162 CIII. Huic similis est quam Graeci andrachlen agrian vocant, Italia inlecebram, pusillis latioribus foliis et brevioris cacumine. nascitur in petris et colligitur cibi causa. omnium harum vis eadem re-

¹ iridi *Detlefsen*, multi *codd.* : sativi *Mayhoff*, qui punctum non ante sed post aizoi ponit.

² atque *Detlefsen* : sed aequae *Mayhoff* : sed qui VRd : qui E : alii *vulg.*

^a Ox-eye.

^b Animal-eye.

^c Affection (although it means natural affection rather than sexual love).

^d Beneath the eaves (*ὑπόγειον*).

^e Immortal food.

^f Care-free.

harsh, the stem longer than that of the other kind but very slender. It is used for the same purposes as the iris.

CII. Of the aizoïm there are two kinds, the larger of which is planted in earthen pots, and is sometimes called buphthalmos,^a zoophthalmos,^b stergethron^c (because it is useful for love-philtres), hypogeson^d (for it generally grows under eaves), although some prefer to call it ambrosia^e or amerimnon^f; Italians call it great sedum, or eye, or little finger. The other kind is rather small, and is called erithales,^g trithales^h (because it flowers three times), erysithales,ⁱ isoetes,^j sedum by Italians, and both are called aizoïm, because they are always green, or sempervivum.^k The greater aizoïm grows to even more than a cubit in height and is thicker than a thumb. At the point the leaves are like a tongue, fleshy, rich with copious juice, as broad as a thumb, some bent to the ground and others upright, so that the circle of them is like an eye in shape. The smaller aizoïm grows on walls, ruins, and roof-tiles; it is bushy from the root and leafy to the top, with narrow, pointed and juicy leaves, and a stem a span high. The root is not used.

CIII. Resembling this is a plant that the Greeks call wild andrachle, the Italians inlecebra. It has very small leaves, but broader than those of aizoïm, and the head is shorter. It grows in rocky districts and is gathered for food. All these have the same properties; they are cooling and astringent.

^g Luxuriant blossom.

^h Thrice-blossoming.

ⁱ Reddish blossom.

^j Possibly "equal all the year."

^k Ever-flourishing.

Aizoïm for the eyes.

Andrachle for the eye etc.

- 163 frigerare et adstringere. medentur epiphoris folia inposita vel sucus inunctis. purgat enim ulcera oculorum expletque et ad cicatricem perducit, palpebras deglutinat. eadem capitis doloribus medentur suco vel folio temporibus inlitis, adversantur phalangiorum ictibus, aconito vero maius aizoum praecipue. a scorpionibus quoque habentem id feriri negant.
- 164 medentur et aurium dolori, item sucus inunctus hyoscyami modicus, item achilleae et centaurii minoris et plantaginis, peucedani cum rosaceo et meconio, acori sucus cum rosa. omnis autem strigili calefactus infunditur, cotyledon etiam purulentis cum medulla cervina calefacta, ebuli radice tritae sucus linteo colatus, mox in sole densatus et cum opus sit rosaceo dilutus et calefactus. parotidas verbenaca, item plantago sanat, item sideritis cum axungia vetere.
- 165 CIV. Narium ozaenam emendat aristolochia cum cypero.
- CV. Dentibus remedio sunt panacis radix commanducata, praecipue chironiae, item sucus collutis, radix hyoscyami ex aceto manducata, item polemoniae. commanducatur et plantaginis radix, aut coluntur in aceto decoctae suco; et folia esse¹ utile,² vel si sanguine gingivae putrescant. vel³ semen eiusdem
- 166 apostemata et collectiones gingivarum sanat. et aristolochia gingivas dentesque confirmat, verbenaca

¹ esse VRE, *Dellefsen, Mayhoff*: edere dT: sunt *vulg.*

² utile *Dellefsen, Mayhoff, multi codd.*: inutile E: utilia *vulg.*

³ vel ante semen in *uncis Mayhoff.*

^a There seems to be generally a difference between *inunguo* and *inlino*: the former is to anoint or rub, as with oil, the latter is to apply, but the distinction is not always observed. See also p. 56.

gent. Fluxes of the eyes are cured by an application of the leaves or of the juice used as ointment. For it cleanses sores of the eyes, replaces lost tissue and makes them cicatrize; it unglues the eyelids when sticky. These plants also cure headaches if the temples are smeared ^a with the juice or leaves; they neutralize the bite of venomous spiders; for aconite, however, an especially good antidote is the greater aizoüm. It is also said that those who have this plant on their persons are not stung by scorpions. They also cure ear-ache, as does the application of a moderate amount of juice of henbane,^a or of achillea, of the smaller centaury, of plantain, of peucedanum mixed with rose oil and poppy juice, and of acoron juice with rose leaves. But all these juices are warmed and injected with a strigil, cotyledon being good even for pus in the ears if warmed deer's marrow is added, or the juice of crushed root of ebulum strained through a cloth, then thickened in the sun and, when needed, diluted with rose oil and warmed. Vervain

*Cures for
parotid
glands.*

CIV. Polypus in the nose is treated successfully by aristolochia with cyperus.

*Polypus in
the nose.*

CV. For the teeth remedies are: chewed root of panaces, chewed root of chironia especially, the juice too if the teeth be rinsed with it, the root of henbane chewed with vinegar, and that of polemonia. The root of plantain also is chewed, or the teeth are rinsed with the juice of the decoction in vinegar. To eat the leaves also is useful, even if the gums are purulent; or the seed of the same plant heals abscesses and gatherings in the gums. Aristolochia too strengthens gums and teeth, as does

*Remedies for
the teeth.*

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cum radice commanducata et decoctae ex vino aut aceto sucus collutus, item quinquefolii radicis decoctae ad tertias in vino¹ aut aceto. prius quam decoquatur aqua marina aut salsa lavatur. decocum diu tenendum in ore. quidam cinere quinquefolii fricare malunt. et verbasci radix decoquitur in vino ad colluendos dentes, et hysopo colluuntur et peucedani suco cum meconio, vel radicum anagallidis magis feminae suco ab altera nare quam doleat infuso.

- 167 CVI. Erigeron a nostris vocatur senecio. hanc si ferro circumscriptam effodiat aliquis tangatque ea dentem et alternis ter despuat ac reponat in eundem locum ita ut vivat herba, aiunt dentem eum postea non doliturum. herba est trixaginis specie et mollitia, cauliculis subrubicundis. nascitur in tegulis et in muris. nomen hoc Graeci dederunt, quia vere canescit. caput eius numerosa dividitur lanugine, qualis est spinae, inter divisuras exeunte, quare
168 Callimachus eam acanthida appellavit, alii pappum. nec deinde Graecis de ea constat. alii erucae foliis esse dixerunt, alii roboris, sed minora multo, radice alii supervacua, alii nervis utili, alii potu strangu-

¹ in vino *Mayhoff*: vino *codd.*

^a However this sentence is punctuated, the grammar seems to be imperfect. Were it not for the *vel* before *radicum* it might be thought that the ablative absolute *suco infuso* referred to preliminary treatment before rinsing the teeth with one of the washes mentioned in the previous clause, but there is no variant. Perhaps the *vel* means "The washes mentioned just now may be used by themselves, or they may be preceded by an injection of juice of anagallis root up the nostril further away from the pain."

vervain chewed with its root, or the juice of a decoction in wine or vinegar used as a mouth-wash, and also that of the root of cinquefoil boiled down to one-third in wine or vinegar. Before it is boiled down it is washed in sea water or salt water, and the decoction should be kept in the mouth for a long time. Some prefer to use the ash of cinquefoil as a dentrifice. The root of verbascum too is boiled down in wine to make a mouth-wash for the teeth, for which purpose also hyssop is employed and the juice of peucedanum with poppy juice; or the juice of anagallis roots, by preference of the female plant, is poured ^a into the nostril opposite to where pain is felt.

CVI. *Erigeron* is called by us Romans *senecio*. *Erigeron*. If a line is traced round it with an iron tool before it is dug up, and if one touches a painful tooth with the plant three times, spitting after each touch, and replaces it into its original ground so as to keep it alive, it is said that the tooth will never cause pain thereafter. This plant has the appearance and softness of trixago, with small, reddish stems. It grows on tiled roofs and on walls. Its name was given to it by the Greeks, because it is of a hoary colour in spring. Its head is divided by many pieces of down, like those of a thorn, that grow out from between the divisions, which is why Callimachus gave it the name of *acanthis*, and others *pappus*. Apart from this, however, the Greeks are not in agreement about this plant. Some have said that it has the leaves of rocket, others of the oak but much smaller; some that the root is useless, others that it is good for the sinews, others that it chokes if taken in drink. On the other

- lante. e diverso quidam regio morbo cum vino dederunt et contra omnia vesicae vitia, item cordis et iocineris. extrahere renibus harenam dixere.
- 169 ischiadicis drachmam cum oxymelite ab ambulatione propinavere, torminibus quoque et in passo utilissimam, praecordiis etiam cibo ex aceto eam praedicantes serentesque in hortis. nec defuere qui et alterum genus facerent nec quale esset demonstrarent, contra serpentes in aqua bibendam edendamque comitialibus dantes. nos eam Romanis experimentis per usus digeremus. lanugo eius cum croco et exiguo aquae frigidae trita inlinitur epiphoris, tosta cum mica salis strumis.
- 170 CVII. Ephemerum folia habet lilii, sed minora; caulem parem, florem caeruleum, semen supervacuum, radicem unam digitali crassitudine, dentibus praecipuam concisam in aceto decoctamque ut tepido colluantur. et ipsa etiam radix sistit, cavis exesi¹ inprimitur. chelidoniae radix ex aceto trita continetur ore, erosio veratrum nigrum inprimitur, mobiles utrolibet decocto in aceto firmantur.
- 171 CVIII. Labrum Venerium vocant in flumine nascentem. est ei vermiculus qui circa dentes fricatur² aut cavis dentium cera includitur. cavendum ne avulsa herba terram tangat.

¹ carie exesis *coni.* Mayhoff (Appendix). sistit cariem, caris exesi <si> inprimitur *coni.* Warlington.

² fricatur Mayhoff, qui XXII 121 confert: nectitur Dellefsen: ligatur *vulg.*: necatur *codd.*

hand some have given it with wine for jaundice, and as a cure for all complaints of the bladder, heart, and liver. They have said that it brings away gravel from the kidneys. They prescribed for sciatica a drachma with oxymel after a walk, this dose being also very useful in raisin wine for colic; they recommended it also as a salad with vinegar for the internal organs^a generally, and they planted it in gardens. There have been some who distinguished a second variety, but without pointing out its qualities, prescribing it to be taken in water for snake bite, and to be eaten by epileptics. I myself shall treat of it only in so far as the Romans have found out by experiment how to use it. Its down, with saffron and a little cold water, is applied crushed to eye fluxes and, roasted with a grain of salt, to scrofulous sores.

CVII. *Ephemerum* has the leaves of a lily, but smaller, a stem of the same length, a blue flower, a seed of no value, and a single root of the thickness of a thumb, a sovereign remedy for the teeth if it is cut up into pieces in vinegar, boiled down, and used warm as a mouth wash. And the root also by itself arrests decay if forced into the hollow of a decayed tooth. Root of *chelidonia* is crushed in vinegar and kept in the mouth, dark hellebore is plugged into decayed teeth, and loose teeth are strengthened by either of these boiled down in vinegar. *Ephemerum
and Cheli-
donia.*

CVIII. A plant that grows in rivers they call the bath of Venus. In it is a worm which is rubbed round the teeth or plugged with wax into the hollow of a tooth. Care must be taken that the plant does not touch the ground after being pulled up. *Labrum
Venerium.*

^a See note on XXV. § 41.

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- 172 CIX. Ranunculum vocamus quem Graeci batrachion. genera eius IIII: unum pinguioribus quam coriandri foliis et ad latitudinem malvae accedentibus, colore livido, caule alto gracili et radice alba. nascitur in limitibus umidis et opacis. alterum foliosius, pluribus foliorum incisuris, altioribus¹ caulibus. tertium minimum est, gravi odore, flore aureo.
- 173 quartum simile huic flore lacteo.² omnibus vis caustica, si cruda folia inponantur, pusulasque ut ignis faciunt. ideo ad lepras et psoras iis utuntur et ad tollenda stigmata, causticisque omnibus miscent. alopeciis inponunt celeriter removentes. radix in dolore commanducata diutius rumpit dentes, eadem
- 174 sicca concisa sternutamentum est. nostri herbarii strumum eam vocant, quoniam medetur strumis et panis parte³ in fumo suspensa, creduntque ea rursus sata rebellare quae curaverint vitia,⁴ quo scelere et plantagine utuntur. oris ulcera intus sucus plantaginis emendat et folia radicesque commanducata, vel si rheumatismo laboret os, ulcera faectoremque quinefolium, ulcera psyllium.
- 175 CX. Conposita quoque contra faectores, vel maxime pudendum vitium, trademus. ergo folia myrti et lentisci pari pondere, gallae Syriacae

¹ altioribus *coni. Warmington* : altius *codd.*

² lacteo (*e Dioscoride*) *Brotier, Littré, Detlefsen, Mayhoff* : luteo *codd.*

³ parte *vult delere Warmington, fortasse per ditlographiam ortum.*

⁴ vitia in *Mayhoff.*

^a " Employée en fumigation sur la partie malade " (*Littré*). This is surely wrong, for the whole plant was not burnt, but sometimes replanted. Perhaps the plant was smoked before use, or perhaps the custom had a magical origin.

CIX. We call *ranunculus* a plant which the Greeks call *batrachion*. There are four kinds of it: one with fatter leaves than those of coriander and nearly as broad as those of mallows, of a leaden colour, with a tall, graceful stem and a whitish root. It grows on moist and shaded cross-paths. The second is more leafy, with more indentations in the leaves, and with taller stems. The third is the smallest, with a strong smell and a golden flower. The fourth is like it, but the flower is of the colour of milk. All have a caustic property; if leaves are applied raw, they raise blisters as does fire. Accordingly they are used for leprous sores and itch, and to remove scars on the skin; they are ingredients of all caustic preparations. They are applied to mange, but are removed quickly. The root if chewed up for tooth-ache too long breaks off the teeth, and the dried root chopped fine makes a snuff. Roman herbalists call it *strumus*, because it cures *scrofula* and superficial abscesses, if a piece of it is hung up in the smoke.^a They believe that if it is replanted the maladies they have cured^b break out again, a similar criminal use being made of the plantain. Sores inside the mouth are cured by juice of plantain, and also by the chewed-up leaves and roots, even if the mouth is suffering from a flux; sores and bad breath are removed by cinquefoil, sores by *psyllium*.

CX. I shall also give some prescriptions for offensive breath, which is a very embarrassing complaint. For this purpose myrtle leaves are taken and an equal weight of leaves of lentisk with half the quantity of Syrian gall-nuts. This com-

The nearest instance I have found to *curare* in Pliny in the strict sense of "cure."

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dimidium pondus simul terere et vino vetusto sparsa mandere matutino ex usu est, vel hederæ bacas cum casia et murra pari pondere ex vino. naribus utilissimum est dracontii semen contritum ex melle, etiamsi carcinomata in iis sint. suggillata hysopo emendantur, stigmata in facie mandragoras inlitus delet.

pound, when beaten up and sprinkled with old wine, may with benefit ^a be chewed in the morning, or one may be made of ivy berries, cassia and myrrh, in equal quantities, added to wine. If the nostrils are the seat of the trouble, even though a cancer-like growth is present, dracontium seed beaten up with honey is very useful. Bruises disappear under applications of hyssop, and scars on the face are removed by rubbing with mandrake.^b

^a Cf. XXVII § 81 *ex usu est fovere*.

^b Possibly "by the use of mandrake ointment."

BOOK XXVI

LIBER XXVI

- 1 I. Sensit facies hominum et novos omnique aevo priore incognitos non Italiae modo verum etiam universae prope Europae morbos. tunc quoque non tota Italia nec per Illyricum Galliasve aut Hispanias magno opere vagatos, aut alibi quam Romae circaque, sine dolore quidem illos ac sine pernicie vitae, sed tanta foeditate ut quaecumque mors praeferenda esset.
- 2 II. Gravissimum ex his lichenas appellavere Graeco nomine, Latine, quoniam a mento fere oriebatur, ioculari primum lascivia, ut est procax multorum natura in alienis miseriis, mox et usurpato vocabulo mentagram, occupantem multis et totos¹ utique voltus, oculis tantum immunibus, descendentem vero et in colla pectusque ac manus foedo cutis furfure.

¹ et totos *vulg.*, *Dellefsen* : et latius totos *Mayhoff* : pro latius *in codd.* invenimus intus V'RdTf, intuitus E *cod. Dal.*, intutus V². *Mayhoff* intentius *coni.* : ego intensius malim.

^a *Lichen*, from the Greek *λείχην*, is in its medical sense the despair of the medical historian. Skin diseases are even today hard to diagnose; in ancient times it was still harder; hardest of all is it to understand now ancient diagnosis. *Lichen* included ringworm and many kinds of eczema, especially when

BOOK XXVI

I. The face of man has also been afflicted with new *New diseases.* diseases, unknown in past years not only to Italy but also to almost the whole of Europe, and even then they did not spread all over Italy, or through Illyricum, the Gauls, and the Spains to any great extent, or in fact anywhere except in and around Rome. Though they are painless and without danger to life, yet they are so disfiguring that any kind of death would be preferable.

II. The most severe of these they called by a *Lichens.* Greek name lichens ^a; in Latin, because it generally began on the chin, it was called mentagra,^b at first *Mentagra.* by way of a joke—so prone are many men to make a jest of the misfortunes of others—the name passing presently into common use. The disease seized in many cases ^c at least the whole of the face, with the eyes only unaffected, but passed down however also to the neck, chest and hands, covering the skin with a disfiguring, scaly eruption.

it resembled the botanical lichen in form. Here it may be some form of leprosy. See also list of diseases.

^b I.e. "chin gout," as *podagra* is "foot gout" and *chiragra* "hand gout." The joke, like most Roman jokes, is a feeble one.

^c Mayhoff's *latius* would mean that the disease spread from the chin. It seems unnecessary with *descendentem*. My *intensius* would mean that the disease became more violent as it spread from the chin. I believe that it could easily have been changed to *intus*.

3 III. Non fuerat haec lues apud maiores patresque
nostros, et primum Ti. Claudii Caesaris principatu
medio inrepsit in Italiam quodam Perusino equite
Romano quaestorio scriba, cum in Asia adparuisset,
inde contagionem eius inportante. nec sensere id
malum feminae aut servitia plebesque humilis aut
media, sed proceres veloci transitu osculi maxime,
foediore multorum qui perpeti medicinam tolera-
verant cicatrice quam morbo. causticis namque
curabatur, ni usque in ossa corpus exustum esset,
4 rebellante taedio. adveneruntque ex Aegypto
genetrice talium vitiorum medici hanc solam operam
adferentes magna sua praeda, siquidem certum est
Manilium Cornutum e praetoriis legatum Aquit-
anicae provinciae HS CC elocasse in eo morbo
curandum sese. acciditque¹ contra² saepius ut nova
genera morborum gregatim sentirentur. quo mira-
bilis quid potest reperiri? aliqua gigni repente
vitia terrarum in parte certa membrisque hominum

¹ acciditque *codd. et edd.* : accidit quoque *Mayhoff*.

² contra *ego transposui* : *om. V¹RT Detlefsen* : *post nova posuit Mayhoff cum codd. V²dEr vulg.*

^a Littré translates *maxime* by “surtout,” “especially through the quick contact of the kiss,” which suggests that kissing was more common among the nobles than elsewhere. I think that the *cursus verborum* points to the translation : “but the nobles through the momentary contact (speedy infection) of a kiss suffered very much.” This is rather obscure, and perhaps *vel*, “even,” has fallen out before *veloci*.

^b The omission of *contra* in several MSS. shows that the logic of the passage, which is certainly oddly expressed, has been long misunderstood. The sequence of thought here, as I understand the passage, is :

III. This plague was unknown to our fathers and forefathers. It first made its way into Italy in the middle of the principate of Tiberius Claudius Caesar, when a Roman knight of Perusia, a quaestor's secretary, introduced the infection from Asia Minor, where he had taken up his duties. Women were not liable to the disease, or slaves and the lower and middle classes, but the nobles were very much infected ^a through the momentary contact of a kiss. The scar left on many who had been hardy enough to endure the treatment was more unsightly than the disease, for caustics were the method employed, and the loathsome complaint broke out afresh unless the flesh was burnt through right to the bones. There arrived from Egypt, the parent of such diseases, physicians who devoted all their attention to this complaint only, to their very great profit, since it is a fact that Manilius Cornutus, of praetorian rank and legate of the province of Aquitania, laid out two hundred thousand sesterces in getting himself treated for that disease. On the other hand ^b it has more usually happened that new kinds of disease on their first appearance have been epidemic. What can be found more marvellous than this, that some diseases should arise suddenly in a special part of the world, should attack special limbs of human

"Mentagra attacked a special class of people in Rome itself, although it was a new disease to Italy; new diseases on their first introduction usually attack whole masses indiscriminately. How strange it is for a disease sometimes to pick as it were its victims!" It is hard for me to believe that *contra* is an insertion of a scribe, or that *gregatim* can mean "among the common people" (Lewis and Short), or in fact anything except "whole masses at a time." See VIII. § 11: *elephanti gregatim semper ingrediuntur*.

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certis vel aetatibus aut etiam fortunis, tamquam malo eligente, haec in pueris grassari, illa in adultis, haec proceres sentire, illa pauperes?

- 5 IV. L. Paullo Q. Marcio censoribus primum in Italiam carbunculum venisse annalibus notatum est, peculiare Narbonensis provinciae malum, quo duo consulares obiere condentibus haec nobis eodem anno, Iulius Rufus atque Laecanius Bassus, ille medicorum inscientia sectus, hic vero † pollicis laevae manus evulso acu ab semetipso tam parvo † ut vix cerni
6 posset. nascitur in occultissimis corporum partibus et plerumque sub lingua duritia rubens vari modo, sed capite nigricans, alias livida, in corpus intendens neque intumescens, sine dolore, sine pruritu, sine alio quam somni indicio, quo gravatos in triduo aufert; aliquando et horrorem adferens circaque pusulas

^a The Pontifex Maximus compiled each year the official list of important events. These lists made up the *Annales*.

^b 164 B.C.

^c These men were consuls in A.D. 65 and 62 respectively.

^d The words within daggers seem corrupt, although the general sense of the passage is clear. We expect a participle meaning "thrust in," not "plucked out," and there is no noun to go with *parvo* and *evulso*. There is no satisfactory restoration of the passage, which may possibly be, not corrupt, but badly written by Pliny himself. It may be that *punctu* (XXVIII § 198) has fallen out after *parvo* (the vulgate text has *vulnere* after it), but the difficulty of *evulso*

beings or special ages, or even people of a special position in life, (just as if a plague chose its victims), one children, another adults, one making the nobility especially liable, another the poor.

IV. It is noted in the Annals ^a that it was in the censorship ^b of Lucius Paullus and Quintus Marcius that there appeared for the first time in Italy the carbuncle, a disease peculiar to the province of Gallia Narbonensis. There died of it in the same year as I compose my work two men of consular rank, Julius Rufus ^c and Laecanius Bassus, ^c the former through the ignorance of his physicians, who tried lancing; the latter, however, through his own tearing out with a needle from his left thumb a splinter (boil) so small that it could scarcely be seen. ^d The carbuncle forms in the most hidden parts of the body, and usually as a red hardness under the tongue, like a pimple but blackish at the top, occasionally of a leaden colour, spreading into the flesh but without swelling, pain, irritation, or any other symptom than sleep, overcome by which the patient is carried off in three days. Sometimes also the disease, bringing shivering, small pustules around the sore, and more rarely fever, has reached

remains. The MS. E has *cvulsa* to agree with *acu*. After *acu* a word may have been lost, perhaps *aculeo* (splinter) or *furunculo* (boil). *Carbunculus* (when not anthrax) was a malignant pustule or ulcer. Celsus (V 28A) says that it should be cauterized, but does not mention cutting. "If *acus* does not mean 'head' here it is probably corrupt. There are two ways of transforming a simple boil into a general infection. One is to lance with a knife (Rufus), the other is to squeeze the head out with a dirty thumb (Bassus)." A.C.A.

PLINY : NATURAL HISTORY

parvas, rarius febrem, stomachum faucesque invasit,¹ ocissime exanimans.

- 7 V. Diximus elephantiasim ante Pompei Magni aetatem non accidisse in Italia, et ipsam a facie saepius incipientem, in nare prima veluti lenticula, mox inarescente² per totum corpus maculosa variis coloribus et inaequali cute, alibi crassa, alibi tenui, dura alibi ceu scabie aspera, ad postremum vero nigrescente et ad ossa carnes adprimente, intumescentibus digitis in pedibus manibusque. Aegypti peculiare hoc malum et, cum in reges incidisset, populis funebre, quippe in balineis solia temperabantur humano sanguine ad medicinam eam. et hic quidem morbus celeriter in Italia restinctus est, sicut et ille quem gemursam appellavere prisci inter digitos pedum nascentem, etiam nomine oblitterato.
- 9 VI. Id ipsum mirabile, alios desinere in nobis, alios durare, sicuti colum. Ti. Caesaris principatu inrepsit id malum, nec quisquam id prior imperatore ipso sensit, magna civitatis ambage, cum in edicto eius excusantis valetudinem legeret nomen incog-

¹ faucesque invasit VR : paucisque E r : faucesque cum invasit d(?) *vulg.*, *Dellefsen* : faucesque ut invasit *Mayhoff*, qui VIII 158, IX 122, 152, 153, XV 85, XVIII 115, XX 38, XXX 63, XXXI 109, XXXIII 29, XXXVI 127 confert.

² inarescente *Dellefsen* cum *codd.* : increscente *Ianus*, *Mayhoff*.

^a In spite of the vulgate *cum* before *invasit*, and of Mayhoff's formidable list of parallel passages in support of *ut*, which he substitutes for *cum*, I am inclined to believe that a new sentence begins after *aufert*; in other words that two forms of the disease are mentioned, one which kills by producing coma, the other in which death is due to suffocation and choking.

the oesophagus and pharynx,^a causing death very quickly.

V. I have said that leprosy^b did not occur in *Leprosy.* Italy before the time of Pompeius Magnus, and that though the plague usually begins on the face, a kind of freckle on the tip of the nose, yet presently the skin dries up^c over all the body, covered with spots of various colours, and uneven, in places thick, in others thin, in others hard as with rough itch-scab, finally however going black, and pressing the flesh on to the bones, while the toes and fingers swell up. This plague is native to Egypt. When kings were attacked, it was a deadly thing for the inhabitants, because the tubs in the baths used to be prepared with warm human blood for its treatment. This disease indeed quickly died out in Italy, as also did that called by the ancients *gemursa*,^d which appeared between the toes, the very name being now obsolete.

VI. This itself is a wonderful fact, that some *Colum.* diseases should disappear from among us while others remain endemic, as for example *colum*.^e It was in the principate of Tiberius Caesar that this malady made its way into Italy. Nobody suffered from it before the Emperor himself, and the citizens were greatly puzzled when they read in his edict, in which he begged to be excused because of illness, a

Unfortunately there are no *similia* in the medical writings by which the text might have been settled.

^b See XX § 144 and list of diseases.

^c With the reading *increscente*: "it increases over all the body, the skin being, etc." I suggest "plague," to bring out the force of the emphatic *ipsam*.

^d We do not know what *gemursa* was, this being the only place (except once in Festus) where the word occurs.

^e An intestinal disease. See list of diseases.

PLINY : NATURAL HISTORY

- nitum. quid hoc esse dicamus aut quas deorum iras? parum enim erant homini certa morborum genera, cum supra trecenta essent, nisi etiam nova timerentur? neque ipsi autem homines pauciora sibi
- 10 opera sua negotia inportant. haec apud priscos erant quae memoramus¹ remedia, medicinam ipsa quodammodo rerum natura faciente, et diu fuere. Hippocratis certe, qui primus medendi praecepta clarissime condidit, referta herbarum mentione invenimus volumina. nec minus Diocli Carysti, qui secundus aetate famaue extitit, item Praxagorae
- 11 et Chrysippi ac deinde Erasistrati Cei,² Herophilo quidem, quamquam subtilioris sectae conditori, ante omnes³ . . . celebratam rationem eam, paulatim⁴ usu efficacissimo rerum omnium magistro, peculiariter utique medicinae, ad verba garrulitatemque descendente.⁵ sedere namque in scholis auditioni operatos gratius erat quam ire per solitudines et quaerere herbas alias aliis diebus anni.
- 12 VII. Durabat tamen antiquitas firma magnasque confessae rei vindicabat reliquias, donec Asclepiades aetate Magni Pompei orandi magister nec satis in arte ea quaestuosus, ut ad alia quam forum⁶ sagacis

¹ memoramus *Mayhoff cum codd.* : memoravimus *Urlichs, Dellefsen.*

² Cei *Dellefsen, Mayhoff e Strabone (X v 6)* : *Co codd.*

³ omnes *vulg.* : omnis *codd., Dellefsen, Mayhoff.* *Post omnes excidit fortasse scimus.*

⁴ eam, paulatim *codd.* : , iam paulatim *Mayhoff.*

⁵ descendente *vulg.* : descendentem *V¹ d t Mayhoff.*

⁶ quam forum *fere omnes codd.* : *om. vulg.*

^a This emendation of the *Co* of the MSS. is certain, unless Pliny has made one of his characteristic blunders.

^b Or, "far-fetched doctrine."

name they had never heard before. What are we to say that this means, what wrath of the gods? Were the recognised kinds of human disease, more than three hundred, too few, that they must be increased by new ones also to add to man's fears? No fewer either are the troubles which man brings upon himself by his own agency. These remedies that I record were those used by the ancients, Nature in a way making medicine herself, and their vogue was a long one. Certainly the works of Hippocrates, who was the first to put together, and that with great distinction, rules for medical practice, we find full of references to herbs, equally so the works of Diocles of Carystus, who comes next after Hippocrates in time and reputation, likewise those of Praxagoras and Chrysippus, and then comes Erasistratus of Ceos^a; while Herophilus indeed, although the founder of an over-subtle sect,^b <we know> recommended before all others this method of treatment.^c But little by little experience, the most efficient teacher of all things, and in particular of medicine, degenerated into words and mere talk. For it was more pleasant to sit in a lecture-room engaged in listening, than to go out into the wilds and search for the various plants at their proper season of the year.

*The old
system of
medicine.*

VII. However, the ancient system of medicine remained unshaken, and claimed as its own considerable remains of its once acknowledged sphere, until, in the time of Pompeius Magnus, one Asclepiades, a professor of rhetoric, who found his gains in that profession too small, but had a brain

Asclepiades

^a These physicians flourished after Hippocrates, the last two at Alexandria in the early part of the third century B.C.

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- ingenii, huc se repente convertit atque, ut necesse erat homini qui nec id egisset nec remedia nosset oculis usuque percipienda, torrenti ac meditata cotidie oratione blandiens omnia abdicavit totamque medicinam ad causas revocando coniecturae fecit, quinque
 13 res maxume communium auxiliorum professus, abstinentiam cibi, alias vini, fricationem corporis, ambulationem, gestationes, quae cum unusquisque semet ipsum sibi praestare posse intellegeret, faventibus cunctis velut¹ essent vera quae facillima erant, universum prope humanum genus circumegit in se non alio modo quam si caelo demissus advenisset.
- 14 VIII. Trahebat praeterea mentes² artificio inani³ iam⁴ vina promittendo aegris dandoque tempestive, iam frigidam aquam, et quoniam causas morborum scrutari prius Herophilus instituerat, vini rationem inlustraverat Cleophrantus apud priscos, ipse cognominari se frigida danda praeferens, ut auctor est M. Varro. alia quoque blandimenta excogitabat, iam

¹ velut Warmington : ut *codd.*

² mentes *plerique codd.*, Mayhoff : mentis V, Dellefsen.

³ inani *coni.* Mayhoff, *sed* alias addit : animos iam Dellefsen : mirabili *vulg.* et fortasse d : animalia *plures codd.*, Urlichs : aliae coniecturae sunt anili, animae, amabili. Vide *notam.*

⁴ iam *coni.* *plures* : *om. codd.*

^a It is supposed that Pliny here confuses Asclepiades the physician with Asclepiades the rhetorician. See Clifford Allbutt, *Greek Medicine at Rome*, p. 180.

^b With the MSS. reading : "were inclined to believe that the easiest etc.," but *favere ut* = "to favour the belief that" is dubious.

^c Mayhoff's *inani* is perhaps the least unlikely of the proposed emendations of the *animalia* of the MSS. His *alias*, however, with *iam* following will commend itself to few. The vulgate *mirabili* gives excellent sense, but would not be

brilliant enough for success in other professions, suddenly abandoned rhetoric for medicine.^a A man who neither had practised it nor knew anything of remedies that call for sharp eyes and personal experience, but could attract by his eloquent and daily-practised oratory, was forced to reject all simples, and reducing the whole of medicine to the discovery of causes, made it a matter of guess-work. He recognised especially five principles of general application: fasting from food, in other cases abstinence from wine, massage, walking, and the various kinds of carriage-rides. Since every man realised that he could provide these things for himself, and since all applauded^b him as if the easiest things were also true, Asclepiades brought round to his view almost all the human race, just as if he had been sent as an apostle from heaven.

VIII. He used, moreover, to attract men's minds by the empty artifice^c of promising the sick, now wine, which he administered as opportunity occurred, while now he would prescribe cold water; and since Herophilus had anticipated him in inquiring into the causes of diseases, and Cleophantus among the ancient physicians had brought to prominent notice the treatment by wine, he preferred, according to Marcus Varro, to win for himself the surname of "cold-water giver."^d He devised also other attrac-

corrupted to *animalia*. Personally I thought for a time that *amabili* ("alluring") might be right, and friends have suggested *anili* ("old woman's trick") and *animae* ("psychological trick"). Perhaps *promittendo* is "by prescribing." See XXIV § 80.

^a Asclepiades was actually nicknamed "wine-giver." See *Anonymus Londinensis* XXIV 30 Ἀσκληπιάδης ὁ οἰνοδώτης.

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- suspendendo lectulos quorum iactatu aut morbos extenuaret aut somnos adliceret, iam balneas avidissima hominum cupidine instituendo et alia multa dictu grata atque iucunda, magna auctoritate nec minore
 15 fama, cum occurrisset ignoto funeri, relato homine ab rogo atque servato, ne quis levibus momentis tantam conversionem factam existimet. id solum possumus indignari, unum hominem e levissima gente sine opibus ullis orsum vectigalis sui causa repente leges salutis humano generi dedisse, quas tamen
 16 postea abrogavere multi. Asclepiaden adiuvere multa in antiquorum cura nimis anxia et rudia, ut obruendi aegros veste sudoresque omni modo ciendi, nunc corpora ad ignes torrendi solesve adsiduo quaerendi, in urbe nimbose, immo vero tota Italia imperatrice,¹ tum primum pensili balinearum usu ad infinitum blandiente. praeterea in quibusdam mor-
 17 bis medendi cruciatus detraxit, ut in anginis, quas

¹ imperatrice *codd.*, *vulg.*: imbrium creatrice *Ianus*: imitatrice *Dellefsen*: nimborum altrice *coni.* *Sillig*: imbricitrice *Mayhoff*: immo—imperatrice *uncis inclusit Ulrichs*.

^a Either revolution in medical practice or change in public opinion. See § 13. *Levibus momentis* might mean "with slight effects".

^b Ulrichs is very likely right in putting within brackets the words *immo . . . imperatrice*. It reads like a marginal comment that has crept into the text. None of the proposed emendations of *imperatrice* are convincing, nor do they explain how the supposed corruption has arisen. So I keep the reading of all the MSS., which may have been written by Pliny in one of his wilder flights of fancy: "Italy may rule the world, but it cannot control the weather." Incidentally the passage throws strange light on the climate of ancient Italy, or indicates that even in Rome people grumbled at the weather.

tive methods of treatment, such as suspended beds, so that by rocking them he could either relieve diseases or induce sleep; again, he organized a system of hydropathy, which appeals to man's greedy love of baths, and many other things pleasant and delightful to speak of, which won him a great professional reputation. His fame was no less great when, on meeting the funeral cortège of a man unknown to him, he had him removed from the pyre and saved his life. This incident I give lest any should think that it was on slight grounds that so violent a change^a took place. One thing alone moves me to anger: that one man, of a very superficial race, beginning with no resources, in order to increase his income suddenly gave to the human race rules for health, which however have subsequently been generally discarded. The success of Asclepiades owed much to the many distressing and crude features of ancient medical treatment; for instance, it was the custom to bury patients under coverings, and to promote perspiration by every possible means, now to roast the body before a fire, or continually to make them seek sunshine in our rainy city, nay throughout rainy imperial^b Italy; then for the first time were used hot-air baths, heated from below,^c treatment of infinite attractiveness. Besides this he did away with the agonizing treatment employed in certain diseases; for example in quinsy, which physicians used to treat by thrusting an

^a Pliny says in IX, § 168, that the *pensiles balineae* were invented by one Sergius Orata. This kind of bath had a flooring suspended over the hypocaust. Asclepiades apparently prescribed a "Turkish bath" as a substitute for sunshine in cases where genial warmth was beneficial.

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curabant in fauces organo demisso. damnavit merito et vomitiones tunc supra modum frequentes. arguit et medicamentorum potus stomacho inimicos, quod est magna ex parte verum. itaque nos in primis quae sunt stomacho utilia signamus.

- 18 IX. Super omnia adiuvere eum magicae vanitates in tantum evectae ut abrogare herbis fidem cunctis possent: aethiopide herba amnes ac stagna siccari, onothuridis¹ tactu clausa omnia aperiri, achaemenide coniecta in aciem hostium trepidare agmina ac terga verti, latacen dari solitam a Persarum rege legatis, ut quocumque venissent omnium rerum copia
- 19 abundarent, ac multa similia. ubinam istae fuere, cum Cimbri Teutonique terribili Marte ulularent, aut cum Lucullus tot reges Magorum paucis legionibus sterneret? curve Romani duces primam semper in bellis commerciorum habuere curam? cur Caesaris miles ad Pharsaliam famem sensit, si abundantia omnis contingere unius herbae felicitate poterat? non satius fuit Aemilianum Scipionem Carthaginis portas herba patefacere quam machinis claustra per tot annos quaterere? siccentur hodie meroide Pompinae paludes tantumque agri suburbanae reddatur Italiae. nam quae apud eundem Democritum invenitur compositio medicamenti quo pulchri bonique

¹ onothuridis *Mayhoff*: chondridis *coni. Ianus*: condyendis *Urlichs*: condiendis *plerique codd., Detlefsen*.

^a Again I print *Mayhoff*'s text without much confidence. The *condiendis* of the MSS. is certainly wrong, and among the magical herbs mentioned in Book XXIV none comes nearer to it than this conjecture of *Mayhoff*. One might accept *Jan*'s *chondridis* (cf. XXV, § 93) were that among the magical herbs. ^b Probably *Pliny*'s use of *nam* = *sed*.

^c Who has not been mentioned in any near context.

instrument into the throat. He rightly condemned emetics also, which were at that time employed unduly often. He disapproved also of administering draughts that are injurious to the stomach, a criticism which is to a great extent a sound one. That is why I always point out in the first place those remedies that are beneficial to the stomach.

IX. Above all Asclepiades was helped by Magian *Superstitions.* deceits, which prevailed to such a degree that they were strong enough to destroy confidence in all herbal remedies. It was believed that by the plant aethiopis rivers and pools are dried up; that by the touch of onothuris ^a all things shut are opened; that if achaemenis is thrown on the ranks of an enemy the lines turn their backs in panic; that lataee was wont to be given by the Persian king to his envoys, so that wherever they went they might enjoy an abundant supply of everything, with much similar nonsense. Where then were these plants when the Cimbri and the Teutones raised their awful war yells, or when Lucullus with a few legions laid low so many kings of the Magi? Or why have Roman generals always made victualling a first care in their wars? Why did Caesar's soldiers at Pharsalia feel hunger, if abundant plenty could have been given them by the happy property of a single plant? Would it not have been better for Scipio Aemilianus to open the gates of Carthage by a plant than to shake the defences for so many years with battering-rams? Let the Pomptine marshes be drained today by the plant merois, and much land be recovered for Italy near Rome. But ^b as for the medical prescription found in the same Democritus, ^c to ensure the begetting of beautiful,

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et fortunati gignantur liberi cui umquam Persarum
 20 regi tales dedit? mirum esset profecto hucusque
 provectam credulitatem antiquorum saluberrimis
 ortam initiis, si in ulla re modum humana ingenia
 novissent atque non hanc ipsam medicinam ab
 Asclepiade repertam probaturi suo loco essemus
 evectam ultra Magos etiam. haec est omni in re
 animorum condicio, ut a necessariis orsa primo
 cuncta pervenerint ad nimium. igitur demonstra-
 tarum priore libro herbarum reliquos effectus
 reddemus adicientes ut quasque ratio dictabit.

21 X. Sed in lichenis remediis atque tam foedo malo
 plura undique acervabimus quamquam non paucis
 iam demonstratis. medetur ergo plantago trita,
 quinquefolium, radix albuci ex aceto, ficulni caules
 aceto decocti, hibisci radix cum glutino et aceto acri
 decocta ad quartas. defricant etiam pumice, ut
 rumicis radix trita ex aceto inlinatur et flos visci cum
 22 calce subactus. laudatur et tithymalli cum resina
 decoctum, lichen vero herba omnibus his praefertur,
 inde nomine invento. nascitur in saxis, folio uno ad
 radicem lato, caule uno parvo, longis foliis depen-
 dentibus. haec delet et stigmata, teritur cum melle.
 est aliud genus lichenis, petris totum adhaerens ut

^a XXIX, §§ 6 foll.

^b The glue-like juice of the mistletoe found chiefly in the berry. For this sense of *flos* cf. Virgil, *Georgics*, IV. 39: *fucoque et floribus oras | explent, collectumque haec ipsa ad munera gluten | et visco et Phrygiae servant pice lentius Idae.*

good and lucky children, did it ever give such offspring to any Persian king? It would certainly be wonderful that the credulity of our forefathers, though it arose from most sound beginnings, reached the height it did, if in any matter man's wit knew moderation, and I were not about to show,^a in the appropriate place, that this very system of medicine invented by Asclepiades has surpassed even Magian nonsense. It is without exception the nature of the human mind that what begins with necessities is finally carried to excess. I shall therefore go on to describe the omitted properties of the plants I dealt with in the preceding book, adding any other plants that my judgment will suggest.

X. But of lichen, which is so disfiguring a disease, *Lichen*. I shall amass from all sources a greater number of remedies, although not a few have been noticed already. Remedies, then, are pounded plaintain, cinquefoil, root of asphodel in vinegar, shoots of the fig-tree boiled down in vinegar, and the root of hibiscus with bee-glue and strong vinegar boiled down to one quarter. The affected part is also rubbed with pumice, as a preparation for the application of rumex root pounded in vinegar, or of mistletoe scum ^b kneaded with lime. A decoction too of tithymallus with resin is highly recommended; the plant lichen however is considered a better remedy than all these, a fact which has given the plant its name. It grows among rocks, has one broad leaf near the root, and one small stem with long leaves hanging down from it. This plant removes also marks of scars; it is pounded with honey. There is another kind of lichen, entirely clinging, as does moss, to rocks; this too is used by itself as a local applica-

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muscus, qui et ipse inlinitur. hic et sanguinem sistit
volneribus instillatus et collectiones inlitus. morbum
quoque regium cum melle sanat ore inlito et lingua.
qui ita curentur aqua salsa lavari iubentur, ungui
oleo amygdalino, hortensiis abstinere. ad lichenas
et thapsiae radice utuntur trita cum melle.

- 23 XI. Anginae argemonia medetur sumpta ex vino,
hysopum cum fico decoctum et gargarizatum, peuce-
danum cum coagulo vituli marini aequis partibus,
proserpinaca cum muria ex menis et oleo trita vel sub
lingua habita. item sucus de quinquefolio potus cya-
this tribus. hic et omnibus faucium vitiis medetur
24 gargarizatus, verbascum privatim tonsillis in aqua
potum.

XII. strumis plantago, chelidonia cum melle
et axungia, quinquefolium, radix persollatae item
cum axungia—operitur folio suo inposita—item art-
emisia, radix mandragorae ex aqua. sideritis latifo-
lia clavo sinistra manu circumfossa adalligatur, custo-
dienda sanatis, ne rursus sata¹ herbariorum scelere,
ut in quibusdam diximus, rebellet, quod et in his
quos artemisia sanaverit praedici reperio, item in his
25 quos plantago. damasonium,² quae et alisma³ voca-

¹ sata *Detlefsen cum aliquot codd.*: sata die E r: sata
taedium *Mayhoff*.

² damasonium *Hermolaus Barbarus e Dioscoride, Mayhoff*:
damasione VR *Ianus, Detlefsen*.

³ alisma *Hermolaus Barbarus*: alcea *Caesarius, Detlefsen*:
alcima *Ianus, Mayhoff*: caucalin *vulg.*: alcama, alcanam, alia
nam, alia *codd.*

tion. It also stops bleeding if the juice is dropped into wounds, and applied locally it is good for gatherings. With honey also it cures jaundice, if the mouth and tongue are smeared with it. Patients undergoing this treatment are ordered to bathe in salt water, to be rubbed with almond oil, and to abstain from garden vegetables. To treat lichen is also used the root of thapsia pounded with honey.

XI. For the treatment of quinsy *argemonia* is *Quinsy.* taken in wine, hyssop is boiled down with figs and used as a gargle, pencedanum is used with rennet of the seal in equal parts, and proserpinaca pounded with sprats-brine and oil, or else held beneath the tongue. Cinquefoil juice also, in doses of three cyathi. This also used as gargle is good for all affections of the throat; verbascum taken in water is specific for the tonsils.

XII. For scrofulous sores are prescribed plantain, *Scrofula.* the great celandine with honey and axle-grease, cinquefoil, root of persollata also with axle-grease—the application is covered with the plant's leaves—artemisia also and the root of mandrake in water. Broad-leaved sideritis dug up with a nail in the left hand is attached as an amulet, but the healed patients must guard it, lest herbalists wickedly plant it again, as I have said in certain places,^a and bring about a relapse,^b a danger against which I find those also are warned who have been cured by artemisia, and those too cured by plantain. Damasonium,

^a See XXI, § 144, and XXV, § 174.

^b Elsewhere *rebellare* is used of the disease, so that Pliny has probably written carelessly. Mayhoff thinks that *taedium* (cf. XXVI, § 3, *rebellante taedio*) has fallen out after *sata*, where two MSS. have *die*. This may be right.

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tur, sub solstitio collecta inponitur ex aqua caelesti, folium tritum vel radix tusa cum axungia ita ut inposita folio suo operiatur. sic et ad omnes cervicis dolores tumoresque quacumque in parte.

- 26 XIII. Bellis in pratis nascitur, flore albo, aliquatenus rubente. hanc cum artemisia inlitam efficaciorē esse produnt.

XIV. Condurdum quoque herba solstitialis, flore rubro, suspensa in collo conprimere dicitur strumas, item verbenaca cum plantagine. digitorum vitiis omnibus et privatim pterygiis quinquefolium medetur.

- 27 XV. In pectoris vitiis vel gravissimum est tussis. huic medetur panacis radix in vino dulci, sucus hyoscyami—etiam sanguinem exercantibus, nidor quoque accensi tussientibus—item scordotis mixto nasturtio et resina cum melle tunsa arida—facit et per se faciles excreationes—item centaurium maius vel sanguinem reicientibus, cui vitio et plantaginis
28 sucus medetur, et vettonica obolis tribus in aqua contra purulentas contraque cruentas excreationes, persollatae radix drachma ponderis cum pineis nucleis undecim, peucedani sucus. pectoris doloribus acorum subvenit—et ideo¹ antidotis miscetur—

¹ ideo *Detlefsen, codd., vulg. : idem Mayhoff.*

^a In deciding the right reading here we should take into account Dioscorides III, 152: ἄλισμα · οἱ δὲ δαμασώνιον καλοῦσιν. Cf. XXV, 124.

^b Is *folium* (singular) generic? Perhaps: "so that the application may be covered etc."

^c In this context *antidota* may mean "cough mixtures," for *antidotum* in the sense of remedy is not without parallel. Perhaps, however, the sweet-flag was put into antidotes for

which is also called *alisma*,^a is gathered at the solstice and applied in rainwater to the sores, the leaf being crushed, or the root pounded, with axle-grease, but the application must be covered with a leaf^b from the same plant. The same method is used for all pains in the neck and for tumours in any part of the body.

XIII. The daisy grows in meadows. It has a *Daisy*. white flower, to a certain distance tinged with red. It is held that an application of it is more efficacious if *artemisia* is added.

XIV. *Condurdum* too is a plant blooming at the summer solstice, having a red flower. Hung round the neck it is said to arrest *scrofula*; the same is said of *vervain* with *plantain*. All complaints of the fingers and specifically *whitlows* are successfully treated with *cinquefoil*.

XV. Of chest complaints quite the most distressing *Coughs*. is cough. Remedies for it are: root of *panaces* taken in sweet wine, juice of *henbane* (even when there is spitting of blood; the fumes too of burning *henbane* help the cough), *scordotis* also mixed with *cress* and dry resin pounded with honey—even by itself it makes *expectoration* easy—the greater *centaury* too, even when there is spitting of blood, for which complaint the juice of the *plantain* also is a remedy, three *oboli* of *betony* in water for spitting of pus or blood, root of *persollata* in doses of one *drachma* with eleven pine seeds, juice of *peucedanum*. For pains in the chest *acorum* is a help, and for this reason it is a component of *antidotes*,^c a help too for

poisons in order to relieve chest pains. Mayhoff saw the difficulty and conjectured *idem* for *ideo*; this, however, makes the parenthesis pointless.

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- tussi daucum, item Scythica herba ; eadem ¹ omnibus pectoris vitiis. tussi et purulenta excreantibus obolis tribus in passi totidem, verbascum cuius est
 29 flos aureus. huic tanta vis ut iumentis etiam non tussientibus modo sed ilia quoque trahentibus auxilietur potu, quod et de gentiana reperio. radix cacaliae commanducata et in vino madefacta non tussi tantum sed et faucibus prodest. hysopi quinque rami cum duobus rutae et ficis tribus decocti thoracem purgant, tussim sedant.
- 30 XVI. Bechion tussilago dicitur. duo eius genera : silvestris ubi nascitur subesse aquas credunt, et hoc habent signum aquileges. folia sunt maiuscula quam hederæ quinque aut septem, subalbida a terra, superne pallida, sine caule, sine flore, sine semine, radice tenui. quidam eandem esse arcion et alio nomine chamaeleucen putant. huius aridae cum radice fumus per harundinem haustus et devoratus veterem sanare dicitur tussim, sed in singulos haustus passum gustandum est.
- 31 XVII. Altera a quibusdam salvia appellatur, similis verbasco. conteritur et colata calfit atque ita ad tussim laterisque dolores bibitur, contra scorpiones

¹ eadem *Sillig, Mayhoff* : ea demum *aliquot codd.* : ex V¹R : ea demum ex V².

^a *Commanducata et in vino madefacta* is perhaps *hysteron proteron*.

^b *Thorax*, here "chest," often the whole torso.

^c This chapter is structurally amorphous, and it is futile to attempt to give it a regular structure, especially when we

cough are daucum and the Scythian herb. The last is helpful for all chest complaints. For cough and spitting of pus, the dose being three oboli in the same amount of raisin wine, the golden-flowered verbascum is a good remedy. The potency of this plant is so great that beasts of burden that are not only suffering from cough but also broken-winded, are relieved by a draught, and the same I find is true of gentian. The root of cacalia, soaked in wine and chewed,^a is good not only for cough but also for the throat. A decoction of five sprays of hyssop, two of rue, and three figs, clears the chest^b and soothes the cough.^c

XVI. Bechion is also called tussilago. There are *Bechion.* two kinds of it. Wherever the wild kind grows it is believed that springs run under the surface, and the plant is considered a sign by the water-finders. The leaves are rather larger than those of ivy, numbering five or seven, whitish underneath and pale on the upper side. There is no stem, or flower, or seed, and the root is slender. Some think it is the same as arcion, and chamaeleuce under another name. The smoke of this plant, dried with the root and burnt, is said to cure, if inhaled deeply through a reed, an inveterate cough, but the patient must take a sip of raisin wine at each inhalation.

XVII. The second kind is called by some salvia, being like verbascum. Finely ground, strained and warmed, it is taken in drink for a cough and pains in the side; this prescription is also a remedy for

remember Pliny's fondness for parentheses. I have ventured on emendation and changes of punctuation only in the few cases where these seemed both necessary and certain.

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eadem et dracones marinos efficax. contra serpentes quoque ex oleo perungui ea prodest. hysopi fasciculus cum quadrante mellis decoquitur ad tussim, lateris, pectoris dolores, verbascum cum ruta ex aqua, vettonicae farina bibitur ex aqua calida.

32 XVIII. Stomachum conroborat scordotis suco, centaurium, gentiana ex aqua pota, plantago aut per se in cibo sumpta aut cum lente alicaeve sorbitione. vettonica alias gravis stomacho vitia tamen sanat pota vel foliis conmanducata, item aristolochia pota, agaricum manducatum siccum, ut ex intervallo merum sorbeatur, nymphaea heraclia inlita, peucedani sucus. psyllion ardoribus inponitur, vel cotyledon trita cum polenta vel aizoum.

33 XIX. Molon scapo est striato, foliis mollibus, parvis, radice quattuor digitorum in qua extrema alii caput est. vocatur a quibusdam syron. ex vino stomacho et ¹ dyspnoeae medetur, centaurium maius ecligmate, plantago suco vel cibo, vettonicae tusae

¹ et om. Mayhoff, qui lacunam indicat.

^a It is difficult to translate *draco marinus*, probably *Trachinus draco*, the greater weever, that can inflict poisonous wounds with its dorsal spines. "Sea snake" and "sea serpent" are unsuitable for obvious reasons.

^b For alica, groats from wheat used to make a weak gruel, see XXII, §§ 128, 129. The Romans used it in preference to barley water.

^c *Ardores* is a difficult, at least an ambiguous, term. It occurs five times in Pliny, and except here always as the direct object of the verb *refrigerare*; it is also always in the plural. It could therefore mean: (1) superficial inflammation, (2) feverishness, or (3) a feeling of being stifled by heat. In this passage the verb *inponitur* makes (1) the most likely meaning. The other passages are: *ad refrigerandos in morbis corporum*

scorpion stings and the poison of the sea dragon.^a An embrocation also of the plant and oil is good for snake bites. For cough, pains in the side and in the chest, a decoction is made of a bunch of hyssop and a quarter of a pound of honey, and verbascum with rue is taken in water, or powdered betony in hot water.

XVIII. The stomach is strengthened by the juice of scordotis, by centaury, by gentian taken in water, by plantain, either taken by itself in food or mixed with lentils or alica^b gruel. Although betony in general lies heavy on the stomach, yet taken in drink, or if the leaves are chewed, it cures its troubles; aristolochia also may be taken in drink or dry agaric chewed, neat wine being drunk after a while, and nymphaea heraclia or juice of peucedanum may be applied locally. Psyllion is applied to inflammations,^c or pounded cotyledon with pearl-barley, or aizöüm. *Stomach complaints.*

XIX. Molon has a striated stalk, soft small leaves, and a root four fingers long, at the end of which is a head like that of garlic. Some give it the name of syron. In wine it cures stomach troubles^d and difficulty of breathing, as do the greater centaury in an electuary, plantain, its juice or as food, pounded betony, in the proportion of one pound to half an *Molon, etc.*

ardores (XIV, 99); *ad refrigerandos ardores* (XX, 217); *ardores refrigerando* (of hydromel in a light diet, XXII, 110); *ardores refrigerat* (XXIV, 132). In XXII, 110 at any rate the sense of "feverishness" is the most appropriate.

^d Mayhoff supposes that there is a lacuna after *stomacho*, probably because of the strange conjunction of complaints. But the whole of this sentence is strange, with scarcely any form at all, order and structure being queer.

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- pondo libra, mellis Attici semuncia ex aqua calida cotidie bibentibus, aristolochia vel agaricum obolis
 34 ternis ex aqua calida aut lacte asini potum. cissanthemos ad orthopnoeas bibitur, item hysopum et asthmaticis, peucedani sucus in iocineris doloribus et pectoris laterisque, si febres non sint. sanguinem quoque expuentibus subvenit agaricum victoriati pondere tritum et in mulsi quinque cyathis datum.
 35 idem et amomon facit. iocineri privatim teuceria bibitur recens drachmis quattuor in poscae hemina, vettonicae drachma una in aquae calidae cyathis tribus, ad cordis vitia in frigidae cyathis duobus. quinquefolii sucus iocineris et pulmonis vitiis sanguinemque reicientibus et cuicumque vitio sanguinis intus occurrit. iocineri anagallides mire prosunt. capnon herbam qui edere bilem per urinam reddunt, acoron iocineri medetur, thoraci et praecordiis daucum.
- 36 XX. Ephedra ab aliis anabasis vocata nascitur ventoso fere tractu scandens arborem et ex ramis propendens, folio nullo, cirris numerosa qui sint iunci geniculati, radice pallida. datur ex vino nigro austero trita ad tussim, suspiria, tormina et sorbi-

* This probably means that a decoction or infusion is made, as is often the case when a solid thing "*bibitur*."

^b The adverb *intus* is difficult. Literally the clause seems to mean "fights any blood complaint within," or "advances to the inside against any blood complaint." This might mean that impure blood in the internal organs was purified, or that trouble in the constitution of the blood anywhere was rectified. Pliny is rather loose in placing his adverbs and adverbial phrases, so that we cannot be sure whether *intus* goes more closely with *vitio sanguinis* or with *occurrit*. Grammatically the latter would be more correct, but personally I feel that the

ounce of Attic honey and taken daily in hot water, and aristolochia or agaric in doses of three oboli taken in hot water or ass's milk. Cissanthemus is given in drink ^a for orthopnoea, for that and for asthma hyssop, while for pains in the liver, chest, and side, if there is no fever, the juice of peucedanum. For spitting of blood also agaric is of help; a victoriatum by weight is pounded and given in five cyathi of honey wine. For this complaint amomum is equally good. For liver complaints fresh teucra is specific, taken in the proportion of four drachmae to one hemina of vinegar and water, or betony, one drachma to three cyathi of hot water: the same amount of betony, in two cyathi of cold water, is given for heart affections. The juice of cinquefoil is a remedy for affections of the liver and lungs, for spitting of blood, and for all internal blood impurities.^b Both kinds of anagallis are wonderfully good for liver complaints. Those who have eaten the plant called capnos (smoke) pass bile in their urine. Acoron is a cure for liver diseases, and daucum for those of the chest and hypochondria.^c

XX. Ephedra, called by some anabasis, grows *Ephedra*. generally in wind-swept regions, climbs trees and hangs down from their branches. It has no leaves, but numerous rush-like, jointed tufts, and a pale root. For cough, asthma and colic it is given pounded in a dark-red, dry wine; and it may be made

former is right here. See my note on XXIII, 163 (vol. VI, p. 524 note b). Littré translates as though *intus* were not there, although it appears in his text.

^c This part of Pliny is so confused, and remedies and diseases are so jumbled together, that a marginal analysis becomes difficult. The chief complaints considered are those of the digestive organs.

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tione facta in quam vinum addi convenit. item gentiana madefacta pridie contrita denarii pondere in vini cyathis tribus.

- 37 XXI. Geum radículas tenues habet nigras, bene olentes. medetur non modo pectoris doloribus aut lateris sed et cruditates discutit iucundo sapore. verbenaca vero omnibus visceribus medetur, lateri-
- 38 bus, pulmonibus, iocineribus, thoraci; peculiariter autem pulmonibus et quos ab his phthisis temptet radix herbae consiliginis, quam nuper inventam diximus. suum quidem et pecoris omnis remedium praesens est pulmonum vitio vel traiecta tantum in auricula. bibi debet ex aqua haberique in ore adsi-
- due sub lingua. superficies eius herbae an sit in aliquo usu adhuc incertum est. renibus prodest plantaginis cibus, vettonicae potus, agaricum potum ut in tussi.

- 39 XXII. Tripolion in maritimis nascitur saxis ubi alludit unda, neque in mari neque in sicco, folio isatis crassiore, caule palmum alto, in mucrone diviso, radice alba, odorata, crassa, calidi gustus. datur hepaticis in farre cocta. haec herba eadem videtur quibusdam quae polium de qua suo loco diximus.

- XXIII. Gromphaena, alternis viridibus roseisque per caulem foliis in posca sanguinem reicientibus
- 40 medetur, XXIV. iocineri autem herba malundrum,

^a See Book XXV, § 86.

^b See Book XXI, §§ 44, 145-147.

into a gruel, to which wine should be added. Another remedy is gentian, thoroughly pounded after being steeped the day before, the dose being a denarius by weight in three cyathi of wine.

XXI. Geum has little roots, slender, blackish and with a pleasant smell. It not only is a cure for pains in the chest or side, but also dispels indigestion, having besides a pleasant taste. Vervain however is a cure for troubles of all the internal organs—sides, lungs, liver and chest. But especially good for the lungs, and for those attacked by pulmonary tuberculosis, is the root of the plant consiligo, which I have said was but recently discovered.^a It is a sovereign remedy indeed for lung trouble in pigs and in all cattle, even though it is merely placed across the ear-lap. It ought to be drunk in water and held continuously in the mouth under the tongue. Whether the part of this plant above ground is of any use is not yet agreed. The kidneys are benefited by plantain taken as food, by betony taken in drink, and by agaric taken in drink as is prescribed for cough.

XXII. Tripolion is found on coastal rocks washed by the waves, but neither in the sea nor on dry ground; the leaf is that of isatis only thicker, the stem a span high and divided at the end, and the root white, thick, with a strong smell and a hot taste. Cooked in emmer wheat it is prescribed for patients with liver complaint. This plant is thought by some to be the same as polium, about which I have spoken ^b in its proper place.

XXIII. Gromphaena, which has its leaves alternately green and rose-colour along the stem, taken in vinegar and water cures spitting of blood; XXIV. and the plant malundrum cures troubles of the liver;

Geum.

Tripolion.

*Gromphaena
and other
plants.*

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nascens in segete ac pratis, flore albo odorata. eius cauliculus conteritur ex vino vetere. XXV. item herba calcetum e vinaceis contrita inponitur. faciles praestat vomitiones radix vettonicae, hellebori modo quattuor drachmis in passo aut mulso, hysopum tritum cum melle, utilius praesumpto nasturtio aut irione, molemonium denarii pondere. et sillybi¹ lacteus sucus qui densatur in cummim sumitur cum melle supra dicto pondere praecipueque bilem trahit.

41 rursus sistunt vomitionem cuminum silvestre, vettonicae farina, sumuntur ex aqua. abstergent fastidia cruditatesque digerunt daucum, vettonicae farina ex aqua mulsa, plantago decocta caulium modo. singultus hemionion sedat, item aristolochia, suspiria clymenus. pleuriticis et peripleumoniceis centaurium maius, item hysopum bibitur, pleuriticis peucedani sucus.

42 XXVI. Halus² autem, quam Galli sil³ vocant, Veneti cotoneam medetur lateri, item renibus convolsisque et ruptis. similis est cunilae bubulae, cacuminibus thymo, dulcis et sitim sedans, radicis alibi albae, alibi nigrae.

XXVII. Eosdem effectus in lateris doloribus habet chamaerops myrteis circa caules geminos foliis, capitibus Graeculae rosae, ex vino pota. ischiadicis dolores et spinae levat agaricum potum ut in tussi,

¹ sillybi *Mayhoff*, qui sic distinguit : sillybus *Detlefsen*, qui cum molemonium coniungit : *varia codd.*

² Halus *Detlefsen*, *codd.* : alus *coni. Mayhoff.*

³ sil *Schneider, Sillig, Detlefsen* : sic *codd.*

^a Or, " little stalk."

it grows among the corn and in meadows, with a strong scent and a white flower. Its young shoot^a is beaten up in old wine.

XXV. The plant *calcetum* likewise is crushed with grape-skins and applied locally. Betony root acts as a gentle emetic, administered as is hellebore, the dose being four drachmae taken in raisin wine or in honey wine. The same is true of hyssop beaten up with honey, the result being better if cress or irio is taken first. Another cure is *molemonium* in doses of one denarius by weight. The milky juice of *sillybum* also, which thickens into a gum, is taken with honey, the dose being as above, and is excellent for carrying off bile. On the other hand, vomiting is arrested by wild cummin, or by powdered betony, both taken in water. Distaste for food is banished and indigestion dispelled by *daucum*, by powdered betony in hydromel, and by plantain boiled down as are greens. *Hemionion* relieves hiccoughs, as also does *aristolochia*, and *clymenus* relieves asthma. For pleurisy and pneumonia the greater centaury, and likewise hyssop, are taken in drink, and for pleurisy is taken juice of *peucedanum*.

XXVI. *Halus* also, which the Gauls call *sil* and the Veneti *cotonea*, cures pain in the side, as well as kidney troubles, sprains and ruptures. It is like *ox-cunila*, and the tops are like those of thyme. It is sweet and allays thirst. Its roots are in some districts light, in others dark.

XXVII. The same good effect on pain in the sides is given by *chamaerops*, taken in wine, a plant with myrtle-like leaves around its twin stems, and with heads like those of a Greek rose. *Agarie*, taken in drink as for cough, relieves *sciatica* and pains in the

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item stoechadis aut vettonicae farina ex aqua mulsa.

- 43 XXVIII. Plurimum tamen homini negotii alvus exhibet, cuius causa maior pars mortalium vivit. alias enim cibos non transmittit, alias non continet, alias non capit, alias non conficit, eoque mores venere ut homo maxime cibo pereat. pessimum corporum vas instat ut creditor et saepius die appellat. huius gratia praecipue avaritia expetit, huic luxuria condit, huic navigatur ad Phasim, huic profundi vada exquiruntur. et nemo vilitatem eius aestimat consummationis foeditate. ergo numerosissima est circa hanc medi-
- 44 cinae opera. sistit eam scordotis recens drachma cum vino trita vel decocta potu, polemonia quae et dysintericis ex vino datur, verbasci radix pota ex aqua duorum digitorum magnitudine, nymphaeae heracliae semen cum vino potum radix superior e xiphio drachmae pondere ex aceto, semen plantaginis in vino tritum vel ipsa ex aceto cocta aut alica ex suco eius sumpta, item cum lenticula cocta vel aridae farina inspersa potioni cum papavere tosto et trito, vel sucus infusus aut potus, vettonica in vino ferro calefacto. eadem coeliacis in vino austero datur, his et hiberis inponitur uti dictum est.

^a The other verbs in this sentence are intelligible, but the difference between *non continet* and *non capit* is hard to grasp. I suggest, with some diffidence, that the former refers to vomiting, and the latter to the "full feeling" that rejects even the greatest delicacy. Professor Andrews however suggests diarrhoea and regurgitation.

spine, as does powdered stoechas or betony, taken in hydromel.

XXVIII. The greatest part however of man's trouble is caused by the belly, the gratification of which is the life's work of the majority of mankind. For at one time it does not allow food to pass, at another it will not retain it, at another it does not take ^a it, at another it does not digest it; and so much have our customs degenerated that it is chiefly through his food that a man dies. This, the most troublesome organ in the body, presses as does a creditor, making its demands several times a day. It is for the belly's sake especially that avarice is so acquisitive; for its sake luxury uses spices, voyages are made to the Phasis, and the bottom of the ocean is explored. Nobody, again, is led to consider how base an organ it is by the foulness of its completed work. Therefore the tasks of medicine concerned with the belly are very numerous. Looseness of the bowels is checked by a drachma dose of fresh scordotis beaten up with wine, or by the same quantity taken in a decoction, by polemonia in wine, which is also given for dysentery, by root of verbascum in doses of two fingers' size taken in water, the seed of nymphaea heraclia taken with wine, the upper root of xiphium, the dose being a drachma by weight, taken in vinegar, the seed of plantain beaten up in wine, plantain itself boiled in vinegar, or groats taken in plantain juice, also the plant boiled with lentils, or the plant dried, powdered and sprinkled in drink with parched and pounded poppies, juice of plantain injected or drunk, or betony in wine made warm with hot iron. Betony is also administered in a dry wine for coeliac affections, for which hiberis also

*Diseases
the digesti
organs.*

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- 45 tenesmo radix nymphaeae heracliae e vino bibitur, psyllium in aqua, acori radicis decoctum. aizoi sucus alvum sistit et dysinterias et taenias rotundas pellit. symphyti radix pota in vino alvum et dysinteriam sistit, idem dauci. aizoum foliis contritis ex vino torminibus resistit, alcimae siccae farina torminibus pota cum vino.
- 46 XXIX. Astragalus folia habet longa incisuris multis obliquis, circa radicem caules tres, aut quattuor foliorum plenos, florem hyacinthi, radices villosas, implicatas, rubras, praeduras. nascitur in petrosis, apricis et isdem nivalibus, sicut Pheneo Arcadiae. vis ei ad spissanda corpora. alvum sistit radix in vino pota, quo fit ut moveat urinam represso liquore, sicut pleraque quae alvum sistunt. sanat et dysintericos in vino rubro tusa, difficile autem tunditur. eadem gingivarum suppurationi utilissima est fotu. colligitur exitu autumni, cum folia amisit, siccatur in umbra.
- 47 XXX. Et ladano sistitur alvus utroque, quod in segetibus nascitur contuso et cribrato; bibitur ex aqua mulsa item nobili e vino. ledon appellatur herba ex qua fit in Cypro barbis caprarum adhaerescens. nobilius in Arabia. fit iam¹ et in Syria

¹ *Mayhoff ita distinguit* : nobilius in Arabia fit, iam.

^a Book XXV, § 88.

^b It is noticeable how Pliny carelessly repeats himself in this chapter. In the last sentence *torminibus* occurs twice; in each of the two preceding sentences occurs the phrase *alvum sistit*.

^c *Rubrum vinum*, a light red wine; *nigrum vinum*, a wine of the colour of port.

is applied locally in the way I have described.^a For tenesmus the root of *nymphaea heraclia* is taken in wine, psyllium in water, or a decoction of root of acoron. The juice of *aizoöm* checks looseness of the bowels and dysentery, and expels round worms. Root of *symphytum* taken in wine checks looseness of the bowels and dysentery, as does the root of *dancum*. Leaves of *aizoöm* thoroughly beaten up in wine arrest griping pains, as does dried *alcima* powdered and taken with wine.^b

XXIX. *Astragalus* has long leaves with many *Astragalus*. slanting incisions, around the root three or four stems covered with leaves, blossom like that of the hyacinthus, and roots that are hairy, matted, red and very hard. It grows on stony ground that is exposed to sunshine and also to falls of snow, like the ground around Pheneus in Arcadia. Its property is to brace the body. Its root, taken in wine, checks looseness of the bowels, a result of which is that it is diuretic by forcing back their fluid, as most things do that check looseness. It cures dysentery also when ground in light-red ^c wine, but it is ground only with difficulty. Fomentation with the same plant is very good for gum-boils. It is gathered at the end of autumn, when it has lost its leaves, and is dried in the shade.

XXX. Looseness of the bowels is also checked by *Ladanum*. both kinds of *ladanum*; the one that grows in corn-fields must be first crushed and passed through a sieve. It is taken in hydromel, or in wine of a good vintage. The name of *ledon* is given to a plant from which in Cyprus is made the *ladanum* that clings to the beards of goats; a finer sort is prepared in Arabia. Today a kind is also found in Syria and in Africa, called

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atque Africa, quod toxicum vocant. nervos enim in
 arcu circumdatos lanis trahunt adhaeresciente roscida
 48 lanugine. plura de eo diximus inter unguenta.
 hoc gravissimum odore est durissimumque tactu.
 plurimum enim terrae colligit, cum probetur maxime
 purum, odoratum, molle, viride, resinosum. natura
 ei molliendi, siccandi, concoquendi, somnum ad-
 liciendi. capillum fluentem cohibet nigritiamque
 custodit, auribus cum hydromelite aut rosacco infun-
 ditur, furfures cutis et manantia ulcera sale addito
 sanat, tussim veterem cum storace sumptum, effica-
 cissimum ad ructus.

49 XXXI. Alvim sistit et chondris sive pseudodictam-
 num. hypocisthis, orobothron quibusdam dicta,
 malo granato immaturo similis, nascitur ut diximus,
 sub cistho, unde nomen. haec arefacta in umbra
 sistit alvim ex vino nigro austero utraque. duo enim
 genera eius, candida et rufa. usus in suco, spissat,
 siccatur, et rufa magis stomachi rheumatismos emendat,
 pota tribus obolis sanguinis excreationes cum amylo,
 dysinterias pota et infusa, item verbenaca ex aqua
 data aut carentibus febri ex vino Aminneo, coch-
 learibus quinque additis in cyathos tres vini.

^a The word *τόξον* means "bow."

^b See Book XII, §§ 73 foll.

^c Book XXIV, § 81.

^d The word "hypocisthis" in Greek means "under the cisthus."

^e *Et* has often to be translated "or." Sometimes the sense shows that "or" is the obvious translation, the difference

toxicum. For they surround with pieces of wool strings fastened across a bow,^a and drag it over the plant; to this wool adhere the dew-like tufts of ladanum. I have said more about the plant in my section on unguents.^b This ladanum has a very strong smell and is very hard to the touch. In fact a great deal of earth sticks to it, while the most valued kind is clean, scented, soft, green and resinous. Its nature is to soften, to dry, to mature abscesses, and to induce sleep. It prevents the hair from falling off, and preserves its dark colour. It is poured into the ears with hydromel or rose-oil. With the addition of salt it cures scurf on the skin and running sores, and chronic cough when taken with storax; it is also a very effective carminative.

XXXI. Looseness of the bowels is checked too by chondris, also called pseudodictamnium. Hypocisthis, called by some orobothron, which is like an unripe pomegranate, grows as I have said^c under the cisthus, and from this fact derives its name.^d Either kind of hypocisthis (there are two; the white and the red), dried in the shade and taken in dark-red, dry wine, checks looseness of the bowels. The part used is the juice, which braces and dries, and it is the red kind that arrests better stomach catarrhs, spitting of blood when three oboli are taken with starch in drink, and dysentery when taken in drink or^e injected; similarly vervain given in water, or in Aminnean wine if there is no fever, the dose being five spoonfuls added to three cyathi of wine.

Other digestive remedies.

between the two languages being idiomatic; at other times (as here) there is a real ambiguity, and nobody can decide whether *et* is equivalent to "and" or "or."

PLINY : NATURAL HISTORY

- 50 XXXII. Laver quoque nascens in rivis condita et cocta torminibus medetur, XXXIII. potamogiton vero ex vino disintericis etiam et coeliacis, similis betae foliis, minor tantum hirsutiorque, paulum semper eminens extra aquam. usus in foliis: refrigerant, spissant, peculiariter cruribus vitiosis utilia et contra ulcerum nomas cum melle vel aceto.
- 51 Castor hanc aliter noverat, tenui folio velut equinis saetis, thyrsos longo et levi, in aquosis nascentem. radice sanabat strumas et duritias. potamogiton adversatur crocodilis, itaque secum habent eam qui venantur eos. alvum sistit et achillea. eosdem effectus praestat et statice, septem caulibus veluti rosae capita sustinens.
- 52 XXXIV. Ceratia uno folio, radice nodosa et magna, in cibo coeliacis et dysintericis medetur. leontopodion alii leuceoron, alii dorypetron, alii thorybethron vocant, cuius radix alvum sistit purgatque bilem, in aquam mulsam addito pondere denariorum duorum. nascitur in campestri et gracili solo. semen eius potum lymphatica somnia facere dicitur. lagopus sistit alvum e vino pota aut
- 53 in febris ex aqua. eadem inguini adalligatur in tumore. nascitur in segetibus. multi super omnia laudant ad deploratos dysintericos quinquifolium

^a Bostock and Riley have: "neutralizes the effects of the bite of the crocodile," a translation which fits in with the usual sense of *adversari* in Pliny, and, absurd as it sounds, may be right. Perhaps the plant was used as an amulet.

^b Not that it would be taken with that object. Cf. § 57.

XXXII. Laver also, which grows in streams, when preserved and boiled cures gripings, XXXIII. potamogiton, however, taken in wine, cures dysentery as well and coeliac affections. The latter is a plant with leaves like those of beet, only it is a smaller and more hairy plant, never rising more than a little above the surface of the water. Only the leaves are used, which have a cooling and bracing quality, being especially useful for bad legs, and, with honey or vinegar, for corroding ulcers. The plant known to Castor under this name was different; it had slender leaves like horse-hair, a long, smooth stem, and grew in marshy districts. With its root Castor used to cure scrofulous sores and indurations. The crocodile has an antipathy ^a to potamogiton, so that crocodile hunters carry some of it on their persons. Achillea too checks looseness of the bowels. Statice also has the same properties, a plant that bears seven heads, like the heads of a rose, upon seven stems.

XXXIV. Ceratia, a plant with one leaf, and a large, knotted root, taken in food cures sufferers from coeliac disease and dysentery. Leontopodium, called by some leuceoron, by others dorypetron, by others thorybethron, is a plant the root of which, in doses of two denarii by weight added to hydromel, checks looseness of the bowels and carries off bile. It grows on flat land with a thin soil. Its seed, taken in drink, is said to cause nightmares.^b Lagopus taken in wine, or in water if there is fever, checks looseness of the bowels. It is also attached to the groin when there is swelling there. It grows in cornfields. Many recommend above all else for desperate cases of dysentery doses of a decoction

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- decoctis in lacte radicibus potis, et aristolochiam victoriati pondere in cyathis vini tribus. quae ex supra dictis calida sumuntur, haec candente ferro temperari aptius erit. e diverso purgat alvum sucus
- 54 centaurii minoris drachma in hemina aquae cum exiguo salis et aceti bilemque detrahit, maiore tormina discutiuntur. vettonica alvum solvit drachmis quattuor in hydromelitis cyathis novem, item euphorbeum vel agaricum drachmis duabus cum sale modico potum ex aqua aut in mulso obolis tribus. solvit et cyclaminos ex aqua pota aut balanis subditis, item chamaecissi balanus. hysopi manipulus decoctus ad tertias cum sale et pituitas trahit¹ vel tritus in oxymelite et sale, pellitque ventris animalia. pituitam et bilem detrahit peucedani radix.
- 55 XXXV. Alvum purgant anagallides ex aqua mulsa, item epithymum, qui est flos e thymo satureiae simili. differentia, quod hic herbaceus est, alterius thymi albus; quidam hippopheon vocant. stomacho minus utilis vomitiones movet, sed tormina et inflationes discutit. sumitur et celigmate ad pectoris
- 56 vitia cum melle et aliquando iride. alvum solvit a quattuor drachmis ad sex cum melle et exiguo salis atque aceti. quidam aliter epithymum tradunt sine radice nasci, capite tenui² similitudine pallioli, rubens, siccari in umbra, bibi ex aqua acetabuli parte dimidia, detrahare pituitam bilemque, alvo leniter

¹ *Post trahit d(?) et vulg. inlitus addunt.*

² *capite tenui coni. Mayhoff sed in textu tenue cum Har-
duino : tenuis Detlefsen : tenui codd.*

^a In this chapter, as in most prescriptions given by Pliny, although the dosage is often given, the frequency of the doses is omitted, as is the length of the treatment. These important points are often left to chance or common sense.

in milk of the roots of cinquefoil, or aristolochia, a victoriatum by weight in three cyathi of wine. When the prescriptions mentioned above are to be taken warm, it will be found best to heat them with red-hot iron. On the other hand a drachma of the juice of the lesser centaury taken in a hemina of water with a little salt and vinegar purges the bowels and carries off bile;^a the greater centaury dispels griping pains. Betony acts as an aperient, four drachmae being added to nine cyathi of hydromel; so also euphorbeum or agaric, in doses of two drachmae with a little salt, taken in water or in three oboli of honey wine. Cyclamen too is an aperient, either taken in water or used as a suppository; the same in its action is a suppository of chamaecissos. A handful of hyssop, boiled down to one third with salt, or pounded in oxymel and salt, both carries off phlegm and expels worms from the intestines. Root of peucedanum carries off both phlegm and bile.

XXXV. Both kinds of anagallis, taken in hydromel, are purgative, as is also epithymum, which is the blossom of the thyme like satureia. The only difference is that this has a grass-green flower, the other thyme a white one. Some call it hippopheos. Less beneficial to the stomach, it causes vomitings, but dispels colic and flatulence. As an electuary it is also taken with honey, and sometimes with iris, for chest troubles. From four to six drachmae with honey and a little salt and vinegar move the bowels. Others give a different account of epithymum: that it grows without a root, has a small head like a little hood, is red in colour and is dried in the shade, and a dose of half an acetabulum, taken in water, carries off phlegm and bile, acting as a gentle aperient.

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57 soluta. XXXVI. et nymphaea in vino austero solvit et pycnocomon, eruae foliis crassioribus et acrioribus, radice rotunda lutei coloris terram olente, caule quadriangulo, modico, tenui, flore ocimi. invenitur in saxosis locis. radix eius in aqua mulsa * 11 pondere et alvum et bilem et pituitam exinanit. semen somnia tumultuosa facit una drachma in vino potum. et capnos¹ trunca² detrahit bilem.

58 XXXVII. Polypodi, quam nostri filiculam vocant, similis filicis, radix in usu, pilosa, coloris intus herbacei, crassitudine digiti minimi, acetabulis cavernosa ceu polyporum cirri, subdulcis, in petris nascens aut sub arboribus vetustis. exprimitur sucus aqua madefactae, et ipsa minute concisa inspergitur oleri vel betae vel malvae vel salsamento aut cum pulcicula coquitur ad alvum vel in febris leniter solvendam. detrahit bilem et pituitam, stomachum offendit. aridae farina indita naribus polypum consumit. florem et semen non fert.

¹ et capnos Vd, *Mayhoff*: et carnos Er: discutit panos *Dellefsen*.

² trunca *Ianus*, *Mayhoff*: struma d: strumam V *Dellefsen*: tru Er unde *Mayhoff* esu coni. XX 178 collato: per urinam coni. *Sillig*.

^a Dioscorides has δριμεία (IV. 174).

^b Perhaps deliberately induced for diagnostic purposes as by the cult of Aesculapius. The next sentence is corrupt in

XXXVI. *Nymphaea* too in a dry wine loosens the bowels, as also does *pyenocomon*, which has leaves like rocket, but thicker and more acrid,^a a round root of a yellow colour and an earthy smell, a quadrangular stem, of moderate length and slender, and the blossom of basil. It is found on stony ground. Its root, taken in hydromel in doses of two denarii by weight, thoroughly purges the bowels of bile and phlegm. A drachma of the seed, taken in wine, causes wild dreams.^b *Capnos trunca* also carries away bile.

XXXVII. Of *polypodium*, a plant called by *Polypodium* Romans *filiola*, being like a fern (*filix*), the root is medicinal, hairy, grass-green inside, as thick as the little finger, with indented edges so as to look like a polypus's arms, of a sweetish taste, and to be found^c in stony soils or under old trees. The juice is extracted from the root soaked in water, and chopped up fine the root itself is sprinkled on cabbage, beet, mallows and pickled fish, or else boiled with gruel to make a gentle aperient usable even in fever. It brings away bile and phlegm, although injurious to the stomach. Dried and reduced to powder it eats away polypus if pushed up the nostrils. There is no flower and no seed.^c

the MSS. with no convincing emendation. I have followed Mayhoff without confidence, believing that there is a lacuna after *facit*: "although the seed causes nightmares yet <it has beneficial effects on the bowels>."

^c In both these places there is a kind of confusion between the root and the plant. It is the leaves that are indented. Only the root was used medicinally, as we see from *radix in usu*, and all the chapter applies to it except the phrases *acetabulis . . . cirri* and *in petris . . . vetustis* and the sentence *florem et semen non fert*. Although, however, the style is faulty, yet the sense is quite clear.

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- 59 XXXVIII. Scamonium quoque dissolutione¹ stomachi² bilem detrahit, alvum solvit, praeterquam si adiciantur aloes drachmae duae obolis eius duobus. est autem sucus herbae ab radice ramosae pinguibus foliis, triangulis, albis, radice crassa, madida, nausiosa.
- 60 nascitur pingui et albo solo. radix circa canis ortum excavatur, ut in ipsam confluat sucus qui sole siccatus digeritur in pastillos. siccatur et ipsa vel cortex. laudatur natione Colophonium, Mysium, Prienense, specie autem nitidum et quam simillimum taurino glutini, fungosum tenuissimis fistulis, cito liquescens, virus redolens, cumminosum, linguae tactu lactescens, quam levissimum, cum diluatur albescens. hoc evenit et adulterino quod fit ervi farina et tithymalli marini suco fere in Iudaea, quod etiam strangulat
- 61 sumptum. deprehenditur gustu, tithymallus enim linguam excaefacit. usus bimo, nec ante nec postea utile, dedere et per se ex aqua vel³ mulsa et sale quaternis obolis, sed utilissime cum aloe ita ut incipiente purgatione mulsum bibatur. fit et decoctum

¹ dissolutione *Dellefsen* : dissolutiones (*aut -em*) multi *codd.* : non sine dissolutione *coni.* *Mayhoff* : fortasse cum dissolutione.

² stomachi] facit *addit Gelenii editio.*

³ vel multi *codd.*, *Dellefsen*, *Mayhoff*, qui ex *Dioscoride* pura vel *coni.* : vel ante ex aqua *trans. E. Wistrand (Eranos, 1931.)*

^a The Latin of this sentence would be made more normal by the addition of *non sine* or *cum* before *dissolutione*. It would be perhaps more "Plinian" if we kept the *dissolutionem* or *dissolutiones* of the MSS. and added *facit* after *stomachi*. Then from *bilem* to *solvit* would be a parenthesis characteristic of Pliny, and the subordinate clause beginning with *praeterquam* would depend logically and grammatically on *dissolutionem stomachi facit*.

^b Littré has : "On fait sécher aussi la plante même ou l'écorce."

XXXVIII. It is by relaxing the stomach that *Scamonium*. scamonium too brings away bile and loosens the bowels, unless indeed to two oboli of it are added two drachmae of aloes.^a This is the juice of a plant with many branches at the root, fleshy, three-cornered, pale leaves, and a thick, wet, nauseating root. It grows in rich, pale soil. Near the rising of the Dogstar a hollow is made in this root, so that the juice may collect in it automatically; this is dried in the sun and worked into lozenges. The root itself or the skin is also dried.^b The kind most approved grows in the regions of Colophon, Mysia and Priene. This is shiny, as like as possible to bull glue,^c spongy with very fine cracks,^d quickly melting,^e with a poisonous smell, gummy, becoming like milk at a touch of the tongue, extremely light, and turning white when dissolved. This happens too with bastard scamonium, which is made, generally in Judaea, with flour of bitter vetch and juice of sea spurge, and even chokes those who take it. The bastard kind is detected by the taste, for the genuine burns the tongue. It is to be used when two years old, being of no use either before or after. It has been prescribed by itself in water or in hydromel and salt,^f the dose being four oboli, but most effectively with aloes, though honey wine must be taken as soon as purging begins. The root too is boiled down in vinegar to the consistency of honey, the decoction

^c For this see XXVIII, § 236.

^d Dioscorides has (IV, 170) *σήραγγας ἔχων λεπτάς, σπογγώδης*. Pliny may have mistaken the first word for *σύριγγας*.

^e Or, "becoming flabby" (Professor A. C. Andrews).

^f Wistrand's emendation is attractive: "either by itself or in hydromel and salt."

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radicis in aceto ad crassitudinem mellis, quo leprae inlinuntur et caput inunguitur¹ in dolore cum oleo.

- 62 XXXIX. Tithymallum nostri herbam lactariam vocant, alii lactucam caprinam, narrantque lacte eius inscripto corpore, cum inaruerit, si cinis inspargatur, apparere litteras, et ita quidam adulteras adloqui maluere quam codicillis. genera eius multa : primus cognominatur characias, qui et masculus existimatur, ramis digitali crassitudine, rubris, sucosis, quinque aut sex, cubitali longitudine, a radice foliis
63 paene oleae, in cacuminibus coma iunci. nascitur in asperis maritimis, legitur semen autumnno cum coma, siccatum sole tunditur et reponitur. sucus vero incipiente pomorum lanugine defractis ramulis excipitur farina ervi aut ficis ut cum iis arescat. quinas autem guttas singulis excipi satis est, traduntque etiam totiens purgari hydropicos fico sumpta quot
64 guttas ea lactis exceperit. sucus cum colligitur, ne attingat oculos cavendum est. fit et e foliis tunsis priore minus efficax. fit et decoctum e ramis. est et semen in usu cum melle decoctum ad catapotia solvendae alvi gratia. semen et dentium cavis cera includitur. coluuntur et radicis decocto e vino aut

¹ inunguitur d, *Mayhoff* : unguitur *plerique codd.*, *Dellefsen*.

^a On *coma* see pp. 482, 483.

^b Two sentences from Dioscorides IV, 164, are interesting. They are : *ὀπίζεται δὲ περὶ τὸν τρυγητόν*, and : *ἐν δὲ τῷ ὀπίζειν οὐ δεῖ κατ' ἀνεμον ἵστασθαι οὐδὲ τὰς χεῖρας προσάγειν τοῖς ὀφθαλμοῖς*.

being applied to leprous sores, and with oil it is used as an ointment for the head when there is headache.

XXXIX. *Tithymallus* is called "milky plant" by *Tithymallus*. us Romans, sometimes "goat lettuce." It is said that, if letters are traced on the body with its milk and then allowed to dry, on being sprinkled with ash the letters become visible. And it is by this means, rather than by a letter, that some lovers have preferred to address unfaithful wives. The kinds of it are many, the first being surnamed characias, which is also considered the male plant. It has five or six branches, a cubit long, as thick as a finger, red and juicy; the leaves at the root are very like those of the olive, and on the top of the stem is a head^a like that of the rush. It grows on rough ground near the sea. The seed is gathered in autumn together with the head; after being left to get dry in the sun it is pounded and stored away; as to the juice, as soon as down begins to form on fruit,^b twigs are broken off, and juice therefrom is caught on meal of bitter vetch or on figs and left to get dry with them. Five drops are enough to be caught on each fig, and it is reported that a dropsical patient on taking a fig has as many motions as the fig has caught drops of juice. When the juice is being collected care must be taken that it does not touch the eyes.^b A juice is also extracted from pounded leaves, but one less efficacious than the former. A decoction too is made from the branches. The seed is also used, boiled down with honey, to make purgative pills. The seed is also inserted with wax into hollow teeth. A decoction too of the root in wine or oil is used as a mouth-wash. The juice is

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- oleo. inlinunt et lichenas suco, bibuntque eum ut purget vomitione et alvo soluta, alias stomacho
 65 inutilem. trahit pituitam sale addito in potu, bilem aphronitro, si per alvum purgari libeat, in posca, si vomitione, in passo aut aqua mulsa. media potio tribus obolis datur. ficos a cibo sumpsisse melius est. fauces urit leniter, est enim tam ferventis naturae ut per se extra corpori inposita ¹ pusulas ignium modo faciat et pro caustico in usu sit.
- 66 XL. Alterum genus tithymalli myrtiten vocant, alii caryiten, foliis myrti acutis et pungentibus, sed maioribus,² et ipsum in asperis nascens. colliguntur comae eius hordeo turgescente siccataeque in umbra diebus novem in sole inarescunt. fructus non pariter maturescit, sed pars anno sequente, et nux vocatur.
- 67 inde cognomen Graeci dedere. demetitur cum ³ messium maturitate lavaturque, deinde siccatur et datur cum papaveris nigri duabus partibus ita ut sit totum acetabuli modus, minus hic vomitorius ⁴ quam superior, ceteri item.⁵ aliqui sic et folium eius dedere,

¹ inposita *cod. a, Dellefsen* : inpositus *Mayhoff* : inpositum *plerique codd., vulg.*

² maioribus *e Dioscoride IV 164 (φύλλα . . . μείζω δὲ καὶ στερεά) Mayhoff* : mollioribus *codd., vulg., edd.*

³ cum *plerique codd., Mayhoff* : om. *cod. a, Dellefsen.*

⁴ vomitorius *C. F. W. Müller, Mayhoff* : vomitionibus *codd., vulg.*

⁵ ceteri item *Mayhoff* : ceterum idem *Dellefsen* : (centum a : idem V x a). *Fortasse ceteri usus iidem, ut Mayhoff coni.*

^a *Mayhoff's conjecture inpositus (scil. sucus) is what Pliny ought to have written, but I think that he wrote the feminine because he had natura, or perhaps herba, in mind. The better attested reading inpositum can scarcely be right, as there is*

applied locally for lichen; it is taken internally as a purge, being both an emetic and an aperient; apart from this it is bad for the stomach. Taken in drink with the addition of salt it brings away phlegm, but to bring away bile saltpetre must be added; if it is desired that the purging shall be by stool, the drink should be vinegar and water; if by vomiting, raisin wine or hydromel. A moderate draught is made up with three oboli. It is better taken on a fig, and after food. The juice burns the throat slightly; for it is of so heating a nature that, applied ^a externally by itself to the body, it raises blisters as fire does, and so it is sometimes used as a cautery.

XL. The second kind of tithymallus is called *Various kinds of tithymallus.* myrtites by some, and caryites by others, having leaves like those of the myrtle, pointed and prickly, but larger, and growing like the first kind in rough ground. Its heads are gathered when the barley is beginning to swell, dried in the shade for nine days and thoroughly dried in the sun. The fruit does not ripen all together, but a part in the following year. It is called the nut, and for this reason the Greeks have surnamed this tithymallus caryites.^b It is gathered when the harvest is ready, washed, and then dried. It is given with twice the amount of black poppy,^c the dose being one acetabulum altogether. It is a less violent emetic than the preceding, as are also the others. Some have given the leaf also in a similar dose, the nut however by itself in

no neuter noun it could refer to, but *inpositū* might have been written by a scribe who was worried by *inposita*.

^b The Greek word *κάρυον* means "a nut."

^c Hort on Theophrastus IX, xi, 9, from which Pliny took his account, says that "*μέλαινα* must here mean 'dark,' i.e. red."

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nucem vero ipsam in mulso aut passo vel cum sesima. trahit pituitam et bilem per alvum. oris ulcera sanat, ad nomas oris folium cum melle estur.

68 XLI. Tertium genus tithymalli paralium vocatur sive tithymallis folio rotundo, caule palmum alto, ramis rubentibus, semine albo, quod colligitur incipiente uva et siccatum teritur sumiturque acetabuli mensura ad purgationes.

69 XLII. Quartum genus helioscopion appellant, foliis porcillacae, ramulis stantibus a radice quattuor aut quinque rubentibus, semipedali altitudine, suci plenis. hoc circa oppida nascitur semine albo columbis gratisimo; nomen accepit, quoniam capita cum sole circumagit. trahit bilem per inferna in oxymelite dimidio acetabulo, ceteri usus qui characiae.

70 XLIII. Quintum cyparittian vocant propter foliorum similitudinem, caule gemino aut triplici, nascentem in campestribus. eadem vis quae helioscopio aut characiae.

XLIV. Sextum platyphyllon vocant, alii corymbiten, alii amygdaliten a similitudine. nec ullius latiora sunt folia. pisces necat, alvum solvit radice vel foliis vel suco in mulso aut aqua mulsa drachmis quattuor. detrahit privatim aquas.

^a An adjective meaning : " by the sea."

^b An adjective meaning : " looking at the sun." See *infra*.

^c For *privatim* see note on XXIV, § 28.

honey wine or raisin wine, or with sesame. It carries off phlegm and bile by stool. Sores in the mouth it cures, but for corroding ulcers in the mouth the leaf is eaten with honey.

XLI. The third kind of tithymallus is called paralius ^a or tithymallis. It has a round leaf, a stem a span high, reddish branches, and a white seed, which is gathered when the grape begins to form, and after being dried and pounded is taken in doses of one acetabulum as a purgative.

XLII. The fourth kind of tithymallus is called helioscopios.^b It has the leaves of purslane, and four or five small branches standing out from the root, which are reddish, half a foot high and full of juice. This kind grows around towns, and has a white seed of which pigeons are very fond. The name helioscopios has been given to this plant because it moves its heads round to follow the sun. Bile it carries away by urine or stool when taken in doses of half an acetabulum in oxymel. Its other uses are the same as those of characias.

XLIII. The fifth kind is called cyparittias, because its leaves are like those of cypress. It has a double or triple stem, and grows in flat country. Its properties are the same as those of helioscopios or characias.

XLIV. The sixth kind is called by some platyphyllos, by others corymbites, and by others amygdalites from its likeness to the almond tree. Its leaves are broader than those of any other. It kills fish. Root, leaves or juice are purgative if a dose of four drachmae is taken in honey wine or hydromel. It is specific ^c for carrying away morbid fluids.

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- 71 XLV. Septimum dendroides cognominant, alii
cobion, alii leptophyllon, in petris nascens, comosis-
simum ex omnibus, maximis ¹ cauliculis rubentibus,
et semine copiosissimum, eiusdem effectus cuius
characias.²
- 72 XLVI. Apios ischas sive raphanos agria, iuncos
duos aut tres spargit in terra rubentes, foliis rutae.
radix cepae, sed amplior, quare quidam raphanum
silvestrem vocant. intus habet mammam candidam,
extra cortices nigros. nascitur in montosis asperis,
73 aliquando et in herbosis. effoditur vere tusaque in
fictili mergitur, deiectoque quod supernatat reliquus
sucus purgat utraque parte sesquiobolo in aqua mulsa.
sic et hydropicis datur acetabuli mensura. inspargitur
et aridae radices farina potioni. aiunt superiorem

¹ maximis *plerique codd., Detlefsen, Mayhoff*: maxime *r a, Mayhoff coni.* comosum [*corruptum in comosissimum (comosumsum) per dittographiam*] maxime.

² characias] *characian coni. Mayhoff*: *characia aut caracia codd.*

^a *Maximis* is perhaps a strange epithet to be applied to the diminutive *cauliculis*. It may mean that the minor stems are comparatively large, but the conjecture of Mayhoff is plausible, that Pliny wrote *comosum* . . . *maxime*, with no epithet

XLV. The seventh kind is surnamed dendroïdes, and is called by some cobios, and by others leptophyllos. It grows among rocks, and is the most thickly headed of all the kinds. It has very large,^a reddish stems, and an abundance of seed. The properties are the same as those of characias.

XLVI. *Apios ischas* or *raphanos agria* spreads out *Apios ischas.* on the ground two or three rush-like stalks of a reddish colour with leaves like those of rue. The root is like that of an onion, but bigger, and this is the reason why some call it the wild radish. Inside it has a white pap, outside, dark skins. It grows in rough, hilly spots, sometimes also in grass land. Dug up in spring, it is pounded and immersed in an earthen vessel.^b After throwing away what floats on the surface they use the juice that remains as a purge and emetic, the dose being an obolus and a half in hydromel. Prepared after this fashion a dose of an acetabulum is also given for dropsy. The dried root powdered is also sprinkled in a draught. They

going with *cauliculis* except the participle *rubentibus*. Dioscorides is not of much help; he says (IV, 164, 9): *οἱ δὲ ἐν ταῖς πέτραις φνόμενος, δένδροειδῆς δὲ καλούμενος, ἀμφιλαφῆς ἄνωθεν καὶ πολύκομος, ὁποῦ μεστός, ὑπέρυθρος τοὺς κλάδους.*

^b Theophrastus does not help us in deciding the meaning of *mergitur* and *supernatat*, but Dioscorides is suggestive. His words are (IV, 175): *οἷσι δὲ βουληθεὶς κόπτε τὰς ρίζας καὶ βαλὼν εἰς κρατηρίαν ὕδατος συντάραττε, καὶ τὸν ἐφιστάμενον ὁπὸν πτερῶ ἀναλέγων ξήραιν· τούτου τρία ἡμιωβόλια ποθέντα ἄνω καὶ κάτω καθαίρει.* In Pliny we have "immersed in an earthen vessel," in Dioscorides "throw into a bowl of water and stir." In Pliny again the floating part is thrown away and the remainder used; in Dioscorides (unless, unnaturally, *ξήραιν* governs *ρίζας*) it is collected, dried and used. Did Pliny follow a different account or did he read *ἀποβαλὼν* where now is read *ἀναλέγων*?

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partem eius vomitione biles extrahere, inferiorem per alvum †aqua†.¹

- 74 XLVII. Tormina discutit quodcumque panaces, vettonica praeterquam a cruditate, peucedani sucus et inflationes, ructus gignens, item acori radix daucumve, si lactucae modo sumatur. Iadanum Cyprium potum interaneorum vitiis occurrit, gentianae farina ex aqua tepida fabae magnitudine, plantago mane sumpta duabus lingulis et tertia papaveris in vini cyathis quattuor non veteris. datur et in somnum euntibus addito nitro vel polenta, si multo post cibum detur. colo infunditur hemina suci vel in feбри.

¹ †aqua† *codd.*: aquam *Ianus*: aequae *Dellefsen*: in aqua *Mayhoff*, *qui coni.* (e *Dioscoride*) sed totam utraque.

* Dioscorides (IV, 175) has: ταύτης τὸ μὲν ἄνωθεν μέρος τῆς ρίζης λημφθὲν δι' ἐμέτων ἄγει χολὴν καὶ φλέγμα, τὸ δὲ πρὸς τῇ ρίζῃ κάτω καθαίρει, ὅλη δὲ λημφθεῖσα ἀμφοτέρας τὰς καθάρσεις κινεῖ. The last clause has only *aqua* to correspond to it in the MSS. of Pliny; hence Mayhoff's conjecture (for the MSS. *aqua*) *sed totam utraque*. This suggestion implies that a scribe's eye passed from *alvum* to *utrjaque*. This is the least unsatisfactory solution yet proposed of this particular difficulty, but there are other perplexing features of the chapter besides the one mentioned here.

(1) κόπτε τὰς ρίζας shows that *tusa* is *tusa radix*, but *nascitur* in the sentence above refers to the plant. This change of subject causes no difficulty, but the last sentence of Pliny, corresponding to the first sentence in the section of Dioscorides, contains an ambiguous and perplexing *eius*. Does this refer to the plant or to the root? Littré translates it "de la racine," but the words of Dioscorides, τὸ δὲ πρὸς τῇ ρίζῃ (*scil.* μέρος) κάτω καθαίρει, can only mean "the part near the root purges by stool"; it cannot mean "the lower part of the root purges by stool." Pliny translates as though it were τὸ δὲ κάτω μέρος τῆς ρίζης. The μὲν clause may mean "the upper part of this root," although ταύτης is strangely placed and could more naturally be translated: "Of this plant the part above the root etc." Furthermore, it is odd to

say that the upper part of it brings away the biles by vomiting, the lower part by stool.^a

XLVII. Colic is cured by any kind of panaces, by betony, except when the cause is indigestion, by the juice of peucedanum, which also, being carminative, dispels flatulence, by the root of acoron, or by daucum, if it is taken as a salad like lettuce. Cyprian ladanum, taken in drink, is good for intestinal complaints, as also is powdered gentian, of the size of a bean, taken in warm water, or plantain taken in the morning, the dose being two spoonfuls with one of poppy in four cyathi of wine which is not old. It is also given before going to sleep with the addition of soda or pearl barley, provided that it is long after the last meal. For colitis a hemina of the juice is injected, even when fever is present.

Digestive troubles continued.

speak of the upper part of the root and its lower part as acting differently; but it is natural enough for the upper part of the plant to act in one way and its lower part in another. Cf., however, § 79. May it be that a *κάτω* has been lost before *πρός* owing to the vicinity of *κάτω* before *καθαίρει*? *μέρος*, too, may have been originally before *λημφθέν*. This transposition of *μέρος* and omission of *κάτω*, if pre-Pliny, might well have caused him to misunderstand the passage. What I have said is mere speculation, and I have not thought it wise to alter the Latin text in any way. On the other hand, it is perhaps useful to point out, from an excellent example, the intricate nature of the problems that everywhere meet the translator of Pliny, who is often bewildered and reduced to guesses in which he can have little confidence.

(2) Dioscorides has *φλοιὸν ἔχουσα (ρίζα) ἔξωθεν μέλανα, ἔνδοθεν δὲ λευκή*; Pliny: (*radix*) *intus habet mammam* (Mayhoff suggests *medullam*) *candidam, extra cortices nigros*. A little later the Greek has *χολήν καὶ φλέγμα*, the Latin *biles* (i.e. black and yellow). Pliny in fact seems to have had a Greek text very similar to that of Dioscorides but not verbally identical with it. So perhaps the difficulties dealt with above are even more complicated than they seem at first sight to be.

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- 75 XLVIII. Agaricum potum obolis tribus in vini veteris cyatho uno lienī medetur, e panace omnium generum radix in mulso, sed teucra praecipue pota arida et decocta quantum manus capiat in aceti heminis tribus ad heminam.¹ inlinitur eadem ex aceto aut, si tolerari non possit, ex fico vel aqua. polemonia bibitur ex vino, vettonica drachma in oxymelitis cyathis tribus, aristolochia ut contra serpentes. argemonia septem diebus in cibo sumpta lienem consumere dicitur, agaricum in aceto mulso obolis duobus. nymphaeae heracliae radix in vino pota et ipsa consumit. cissanthemus drachma bis die sumpta in vini albi cyathis duobus per dies XL lienem dicitur paulatim emittere per urinam. prodest et hysopum cum fico decoctum, lonchitidis radix decocta priusquam semen demittat, peucedani quoque
- 77 radix et lienī et renibus. lien suco acori potu² consumitur—praecordiis et ilibus utilissimae radices³—clymeni semen potum diebus xxx pondere denarii in vino albo, vettonicae farina ex melle et aceto scillite pota, radix lonchitidis in aqua. teucrium inlinitur, item scordium cum cera, agaricum cum farina e feno Graeco.

¹ tribus ad heminam. *Sic dist. Mayhoff*: tribus. ad femina *Detlefsen*.

² lien suco acori potu *Mayhoff*: lien acori potu *Detlefsen*: lienis acori (uco om. ante aco) V R d x: potu vel potu *codd*.

³ utilissima radice coni. *Mayhoff*, qui lacunam ante clymeni in textu ponit.

^a *Ad femina* is a clever emendation, but the chapter deals with diseases of the spleen.

XLVIII. Agaric taken in drink, the dose being *Splenic troubles.* three oboli in one cyathus of old wine, is good for disorders of the spleen, as is the root in honey wine of all kinds of panaces, but best of all is *teucris*, dried and taken in drink by boiling down to one hemina ^a a handful of it with three heminae of vinegar. In vinegar it is also used as a liniment, or, if that cannot be borne, in figs or water. *Polemonia* is taken in wine, or a drachma of *betony* in three cyathi of oxymel, or *aristolochia* as used for snake bite. *Argemonia*, taken in food on seven consecutive days, is said to reduce the spleen, and so are two oboli of agaric in oxymel. It is reduced also by the root of *nymphaea heraclia* taken in wine or by itself. *Ciss-anthemus*, if a drachma is taken twice daily in two cyathi of white wine for forty days, is said to carry off the spleen gradually in the urine. Useful too is a decoction of hyssop with fig, or of the root of *lonchitis* before it sheds its seed, while a decoction of root of *peucedanum* is good for both spleen and kidneys. The spleen is reduced by the juice of *acoron* taken by the mouth—the roots are very useful for trouble of the hypochondria and groin ^b—by the seed of *clymenus* taken in drink for thirty days, the dose being a denarius by weight in white wine, by powdered *betony* taken in honey and squill vinegar, and by root of *lonchitis* in water. *Teucrium* ^c is used as liniment, likewise *scordium* with wax, or agaric with powdered fenugreek.

^b It seems most natural to mend the grammar of this passage by making *praecordiis . . . radices* a parenthesis, a favourite trick of Pliny, and understanding *consumit* or *utile* before *clymeni*.

^c Notice both forms, *teucris* and *teucrium*, in the same chapter.

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- 78 XLIX. Vesicae malis contraque calculos, gravissimis cruciatibus, ut diximus, auxilio est polemonia ex vino pota, item agaricum, plantago foliis vel radice potis ex passo, vettonica ut in iocinere diximus, item ramiti pota atque inlita, eadem ad strangurias efficacissima. quidam ad calculos vettonicam et verbenacam et millefolium aequis portionibus ex aqua
79 pro singulari remedio bibere suadent. strangurias discuti et dictamno certum est, item quinquefolio decocto ad tertias in vino. hoc et enteroceliceis dari atque inlini utilissimum est. xiphi quoque radix superior urinam ciet. infantibus enteroceliceis¹ datur ex aqua et inlinitur; vesicae vitiis peucedani sucus, infantium ramiti et umbilicis eminentibus psyllion
80 inlinitur. urinam cient anagallides, acori radiceis decoctum vel ipsa trita potaque, et omnia vesicae vitia,² calculos et herba et radix cotyledonis itemque genitalium inflammationem omnem pari pondere et
81 caulis et seminis et murræ. ebulum teneris cum foliis tritum ex vino potum calculos pellit, inpositum testes sanat. erigeron quoque cum farina turis et vino dulci testium inflammationes sanat. symphyti radix inlita enterocelas cohibet, genitalium nomas hypo-

¹ infantibus enteroceliceis] *Sic dist. Mayhoff e Dioscoride IV 20: έντεροκληκοῖς τε παιδίοις τήν επάνω ρίζαν (sc. τοῦ ξιφίου) έν ποτῶ σὺν ὕδατι.*

² *Ante calculos addunt de r a: depellit in textu Mayhoff: demit coni. Brakman.*

^a See XXV, § 23.

^b In XXVI, § 35, 1 drachma of betony in 3 cyathi of warm water is prescribed for the liver, but no mention is made there of bladder trouble.

^c It is easier to supply from *cient* suitable verbs to govern *calculos* and *inflammationem*, than it is with Mayhoff to read

BOOK XXVI. XLIX. 78-81

XLIX. For diseases of the bladder and for the cure *Bladder diseases*
of stone, which causes as we have said ^a the most severe torture, help is obtained from polemonia taken in wine, from agaric, from leaves or root of plantain taken in raisin wine, from betony as we prescribed it for the liver ^b; this last, taken in drink and used as liniment, is good for hernia and wonderfully effective for strangury. Some recommend betony, vervain and millefolium, in equal parts and taken in water, as a sovereign remedy for stone. It is certain that strangury is cured by dittany also, and by cinquefoil boiled down to one third in wine. The latter preparation is very useful to be taken, and to be used locally as a liniment, by sufferers from intestinal hernia. The upper part of the root of xiphium also is diuretic; it is given in water and applied locally as liniment for intestinal hernia in infants. For bladder troubles the juice of peucedanum is applied locally, and psyllion is so applied for hernia and umbilical rupture in infants. The two kinds of anagallis are diuretic, as is a decoction of root of acoron, or the root by itself pounded and taken in drink; these are good for all troubles of the bladder,^c for stone both cotyledon and its root, and also, for all inflammations of the genitals, equal parts by weight of the stem, of the seed, and of myrrh. Ebulum ground with its tender leaves and taken in wine expels stone, and applied locally cures complaints of the testicles. Erigeron too with powdered frankincense and sweet wine cures inflammation of the testicles. Root of symphytum used as liniment reduces intestinal hernia, and white hypocisthis is *depellit* from the *de* of *r a*, for *depellit* does not suit the latter noun. Brakman's *demit* is attractive.

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cisthis alba. artemisia quoque datur contra calculos ex vino dulci et ad stranguriam, dolores vesicae sedat ex vino radix nymphaeae heracliae.

- 82 L. Eadem vis crethmo ab Hippocrate admodum laudatae.¹ est autem inter eas quae eduntur silvestrium herbarum—hanc certe apud Callimachum adponit rustica illa Hecale—speciesque elatae² hortensiae. caulis unus palmum altus, semen fervens, odoratum ceu libanotidis, rotundum; siccatum rumpitur, habet intus nucleum candidum, quem aliqui cachrym vocant. folia pingua albicant veluti olivae, crassiora et salsa gustu, radices digiti
- 83 crassitudine tres aut quattuor. nascitur in maritimis petrosis. estur cruda coctave³ cum olere, odorati saporis et iucundi; servatur etiam in muria praecipui usus⁴ ad strangurias folio vel caule vel radice ex vino. colorem quoque corporis gratiorem facit, verum largior inflationes.⁵ alvum solvit decocto, urinam et a renibus umorem trahit sicut alcimae⁶ siccae farina

¹ laudatae *Hard.*, *Mayhoff*: laudato *Detlefsen*: laudata *codd.* (*sc. vis*).

² elatae *codd.*, *Mayhoff*: elatinae *Urlichs*, *Detlefsen*: batis *Hermolaus Barbarus*: althaeae vel malvae *coni. Mayhoff*.

³ cruda coctave *Mayhoff*: crudum coctumve *codd.*

⁴ praecipui usus *Gelenius*, *Detlefsen*: praecipue ei usus *Mayhoff*: praecipue usus (*aut usque*) *codd.*: vis ei ususque *coni. Mayhoff*.

⁵ inflationes] inflammationes *coni. Mayhoff*.

⁶ alcimae *Ianus*, *Detlefsen*, *Mayhoff*, cf. § 45: varia *codd.*

^a Elate was a term for the sprout-tips of the dwarf palm, which was not cultivated. (A.C.A.)

^b Or, "stony."

good for corroding ulcers of the genitals. *Artemisia* too in sweet wine is given for stone and for strangury; root of *nymphæa heraclia* in wine relieves pains of the bladder.

L. The same property is to be found in *crethmos*, a plant very highly praised by Hippocrates. It is also one of the wild plants that are eaten—at any rate in Callimachus the peasant *Hecale* puts it on the table—and a species of garden elate.^a It has one stem a span high, and a hot seed, scented like that of *libanotis*, and round. When dried it bursts, and has inside a white kernel, which some call *cachrys*. The leaves are fleshy, and whitish like those of the olive only thicker, and salt to the taste; there are three or four roots, of the thickness of a finger. It grows in rocky^b places by the sea. It is eaten, raw or boiled, with cabbage,^c and has a pleasant, aromatic taste; it is also preserved in brine. It is especially useful for strangury, the leaves, stem, or root being taken in wine. The complexion also of the skin is improved by it, but too large a dose causes flatulence. A decoction relaxes the bowels, brings away urine and humours from the kidneys, as does the powder of dried *alcima* taken in wine,^d and

^a I have adopted Mayhoff's conjecture because (in this chapter at least) the form used is *crethmos* (fem.). *Cruda* might easily be taken for *crudum*, spelt *crudū*. The MSS. have *crudum coctumve* without variant, and were it not for *hanc* and *largior* one might take the neuters to be careless writing, for there was an alternative form *crethmum*.

^d With the reading of Mayhoff: "taken in wine it relieves strangury more efficaciously if *daucum* is added." There is some uncertainty about the conjecture *alcimæ* of Jan, accepted by both Detlefsen and Mayhoff, as it scarcely accounts for the confusion of the MSS., which have *alcme*, *almae*, *alme* and *alce*.

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in¹ vino pota, stranguriam efficacius addito dauco. lieni quoque utilis adversus serpentes bibitur, iumentis quoque in pituita aut stranguria, hordeo inspersa succurrit.

- 84 LI. Anthyllion² est lenti simillima quae in vino pota vesicas vitiis liberat, sanguinem sistit, altera anthyllis chamaepityi³ similis, flore purpureo, odore gravi, radice intubi, vel magis medetur. . . .⁴

LII. Cepaea, similis porcilacae, nigriore radice, sed inutili, nascens in litoribus harenosis, gustu amara. in vino cum asparagi radice vesicae plurimum prodest.

- 85 LIII. Eadem praestat hypericon (alii chamaepityn, alii corisum appellant) oleraceo frutice, tenui, cubitali, rubente, folio rutae, odore acri, semine in siliqua

¹ in codd. r a *Detlefsen*: e codd. d x *Mayhoff*, qui post farina comma ponit.

² Anthyllion vulg. e *Dioscoride*, *Mayhoff*: canthyllion *VE Detlefsen*. Postea quoque non anthyllis sed canthyllis codd., *Detlefsen*.

³ chamaepityi *Mayhoff* (*Dioscor.* III 136 (ἀνθυλλίς) χαμαιπιτύι . . . ἔοικε . . . τὸ δ' ἄνθος πορφυροῦν, βαρύοσμον ἰσχυρῶς, ρίζα ὥσπερ κιχωρίον).

⁴ Post medetur lacunam indicat *Mayhoff*: *Detlefsen* Vel magis medetur ante cepaea ponit puncto anteposito. *Dioscor.* III 136 ἡ δὲ τῇ χαμαιπιτύι ὁμοία . . . καὶ ἐπιληπτικῶν βοήθημα σὺν ὀξύμέλιτι πινομένη, unde *Mayhoff* putat excidisse fere comitialibus in oxymelite.

^a It is easier to supply a verb (such as *sanat*) to govern *stranguriam* than it is to emend to *stranguriae* with *Mayhoff*.

relieves strangury,^a more efficaciously however if daucum is added. It is also good for the spleen, and is taken in drink for snake bites. Phlegm or strangury in draught animals also is relieved if crethmos is sprinkled over their barley.

LI. Anthyllion is very like the lentil, and taken in wine cures bladder troubles and arrests bleeding. A second plant,^b anthyllis, is like chamaepitys, and has a purple flower, a heavy scent, and a root like that of endive. It is even better treatment <taken in oxymel for epilepsy>.^c

LII. Cepaea is like purslane, but has a darker root, which is of no value. It grows on sandy shores, and has a bitter taste. Taken in wine with root of asparagus it is very good indeed for the bladder.

LIII. The same properties^d are to be found in hypericon—some call it chamaepitys, others corisum—which has the stem^e of a garden vegetable,^f thin, reddish, and a cubit high. The leaves are like those of rue and have a pungent smell. The seed,

^b *Altera anthyllis* is strange after *anthyllion*. It may be a mere slip due to Pliny's carelessness, but the Latin may perhaps bear the sense I have given to it, with *herba* understood after *altera*.

^c The sense of the missing words supplied by Mayhoff from Dioscorides. Professor Andrews thinks that Pliny, after saying that anthyllion is good for bladder and bleeding, goes on to say that anthyllis is even more effective. There is then no need to assume a lacuna.

^d Or, "Also effective for bladder conditions is," i.e. *eādem* (*vesicā*). A.C.A.

^e *Frutex* is usually "bush," "shrub." Here it means stem (= *caulis*), but it is not clear why Pliny has used this word rather than the other.

^f So Littré (*plante potagère*) and Bostock and Riley. Perhaps "cabbage."

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nigro maturescente cum hordeo. natura semini spissandi, alvum sistit, urinam ciet, vesicae cum vino bibitur.

- 86 LIV. Est aliud hypericon, quod aliqui caro¹ appellant, folio tamaricis—et sub ea nascitur—sed pinguioribus foliis et minus² rubentibus, odoratum, palmo altius, suave, leniter acutum. vis semini excalfactoria, et ideo inflammationem facit, sed stomacho non inutile, praecipuum ad stranguriam, si exulcerata non sit vesica. medetur et pleuriticis ex
87 vino potum, LV. vesicae autem callithrix trita simul cum cumino et data ex vino albo. verbenaca quoque cum foliis decocta ad tertias vel radix eius e mulso calido calculos eicit, item perpressa, quae Arreti et in Illyrico nascitur, in aqua decocta ex tribus heminis ad unam pota, trifolium ex vino sumptum et chrysanthemum, anthemis quoque calculos eicit, parvis a radice foliis quinis, caulibus

¹ caro *codd.*, *Detlefsen* : corin e *Dioscoride* *Hermolaus Barbarus* : caron *vulg.*, *Mayhoff*.

² minus] minutis *Mayhoff e Dioscoride, qui scribit* (III 157) φύλλον έχει παραπλήσιον τῷ τῆς ἐρείκης, μικρότερον δὲ καὶ λιπαρώτερον καὶ ἐρυθρόν. *Fortasse* minoribus.

^a Or "astringent," perhaps "thickening."

^b It is tempting to emend to *minoribus* (rather than *Mayhoff's minutis*) so as to bring Pliny closer to Dioscorides, who has μικρότερον (φύλλον). On the other hand the MSS. give

which is black, is in a pod, and it ripens at the same time as barley. This seed is of a bracing^a quality, checks diarrhoea and promotes urine; it is taken with wine for bladder troubles.

LIV. There is another hypericon, called by some caro, having a leaf like that of the tamarisk—it grows underneath it—but more fleshy and less red.^b It is scented, more than a span high, with a sweet and rather pungent^c taste. The seed is of a heating nature and therefore causes inflammation, but it is not injurious to the stomach; it is particularly good for strangury, if the bladder is not ulcerated. Taken in wine it is also good for pleurisy, LV. as moreover is callithrix for the bladder if beaten up with cummin and administered in white wine. Vervain too if boiled down with the leaves to one third, or its root in warm honey wine, expels stone from the bladder, as does also perpressa, which grows near Arretium and in Illyricum; it is taken in drink, boiled down in water from three heminae to one. Trefoil, taken in wine, and chrysanthemum, have the same effect. Stone is expelled also by anthemis, which has five small leaves growing from the root, two long stems

no variant, and it is hard to see why a scribe should alter an easy reading, whether *minoribus* or *minutis*, to *minus*. It is to be noted that Pliny has *pinguioribus* . . . et *minus rubentibus*, but Dioscorides μικρότερον δὲ καὶ λιπαρώτερον καὶ ἐρυθρόν. If the Greek before Pliny (or his reader) had the adjectives in Pliny's order, without connecting particles (λιπαρώτερον, μικρότερον, ἐρυθρόν), it is just possible that they were taken to mean "more fleshy and a little less red." So, after long hesitation, I have kept the MSS. reading. Note that Pliny read μυρικής for ἐρείκης.

^c *Acutus* when used of *sapores* seems to mean merely "sharp"; *acer*, on the contrary, means not only pungent, but salty and with a vinegary flavour.

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longis duobus, flore roseo, radices tritae per se †cei
laver crudum.†¹

- 88 LVI. Silaus nascitur glariosis et perennibus rivis,
cubitalis apii similitudine. coquitur ut olus acidum
magna utilitate vesicae, quae si scabiem sentiat,
panacis radice sanatur, aliter inutilis vesicis. calcu-
los pellit malum erraticum radicis libra in vini congio
decocta ad dimidias—inde heminae sumuntur per
triduum, relicum ex vino²—et urtica marina et
daucum et plantaginis semen ex vino.

LVII. Et herba Fulviana trita ex vino, et haec
nomen inventoris habet, nota tractantibus.³

- 89 LVIII. Urinas ciet scordion, testium tumores
sedat hyoscyamum, genitalibus medetur peucedani

¹ cei laver crudum VE: ceu aliquot codd., *Detlefsen*.
Mayhoff ante cei lacunam indicat; seu vulg.

² vino *Mayhoff* cum plerisque codd.: add. conicio d:
cumcio aliquot codd., *Detlefsen*, qui etiam Pucino coni. XIV 60
coll.

³ tractantibus] *Usque ad uno ut Mayhoff distinguo.*

^a This is a *locus desperatus*. I have followed *Mayhoff*, who marks a lacuna after *se*. The reading of V and E looks like the ending of a word in *-ceum* or *-ceus*, but there is no plant (except *chalceos*) the genitive of which would end in *-cei*, and that *chalcei* is the right reading is most unlikely. The reading *ceu* (adopted by *Detlefsen*) is specious; the word being common in Pliny. The sense, "as it were raw laver," is odd, and so is the grammar, especially as laver is feminine, for *radices* as it stands is very like a pendent nominative. The vulgate *seu* is translated by *Littre*: "comme le laver cru." But this would be *ceu*. (Laver was a water plant, perhaps water cress. "Pliny may have intermingled drastic purges with mild and suave foods." A.C.A.)

^b The word occurs here only. Its description is like the account of *sion* in *Dioscorides* II 127, and *sion* = *laver*, which has just been mentioned. The MSS. show no variants. It may possibly be a "portmanteau" word (*si-lau*).

and a rose-coloured flower. The roots pounded by themselves . . .^a laver, raw.

LVI. Silaus^b grows in running streams with gravelly bottoms; a cubit high it resembles celery. It is boiled as is an acid vegetable, and is very good for the bladder, which if it suffers from *scabies*^c is cured by the root of panaces, a plant otherwise injurious^d to the bladder. Stone is expelled by the wild apple,^e a pound of the root being boiled down to one half in a congius of wine—a hemina of it is taken daily for three days, the rest is taken in wine^f—by sea-nettle, by daucum, and by the seed of plantain in wine.

LVII. The plant of Fulvius, beaten up with wine, is another remedy for stone. It is one of the plants named after the discoverer, and is well known to botanists.^g

LVIII. Scordion is diuretic; hyoscyamus reduces swollen testicles; the genitals are effectively treated by juice of peucedanum, and by its seed in honey;

*Scordion :
various
remedies.*

^e A symptom of *scabies* of the bladder was urine containing scaly concretions.

^d Perhaps here “useless.”

^b The commentators take this to be the same as the *malum terrae* of XXV § 95 = aristolochia.

^f After *vino* some MSS. add *conicio* or *cumcio*. Some editors think that the addition conceals the name of a particular wine, but Mayhoff seems to be right in taking the words to be corruptions of *congio*, which might be, as he says, *prave iteratum*.

^g Perhaps “those who treat the disease,” i.e. physicians. *Tractare* is a very common word in the sense of “to deal with,” but in the present context, with no expressed object, rather strange; it is stranger still that this seems to be the only mention of the plant. Hence Mayhoff’s conjecture *nostratia*.

PLINY : NATURAL HISTORY

- sucus, ex melle semen, stranguriae agaricum obolis
tribus in vini veteris cyatho uno, trifolii radix
drachmis duabus in vino, dauci una drachma vel
seminis. ischiadici semine et foliis erythrodani
tritis sanantur, panace poto et infricato, polemonia,
90 aristolochiae decocto folii. agarico quidem et nervus
qui platus appellatur et umerorum dolor sanatur
obolis tribus in vini veteris cyatho uno poto. quinque-
folium ischiadicis et bibitur et inponitur, item
scamonia¹ decocta, et cum hordei farina. semen
hyperici utriusque bibitur ex vino. sedis vitia et
adtritrus celerrime sanat plantago, condylomata
quinquefolium, sed ea in² callum iam³ conversa⁴
cyclamini radix ex aceto. anagallidum caerulea
procidentiam sedis retro agit, e diverso rubens
91 proritat. cotyledon condylomata et haemorrhoidas
mire curat, testium tumores acori radix decocta in
vino tritaque inlita. intertrigines negat fieri Cato
absinthium Ponticum secum habentibus. alii adi-
ciunt et puleium, quod ieiunus quis⁵ legerit, si post
se alliget, inguinis dolores prohibet aut sedat coeptos.
92 LIX. Inguinalis, quam quidam argemonion
vocant, passim in vepribus nascens ut prosit in manu
tantum habenda est.

¹ scamonia] *Ante decocta vult addere in aceto (ex Dioscoride) Mayhoff. Ante cum om. et vulg.*

² sed ea in *Detlefsen, Mayhoff*: sed eam VRE.

³ callum iam *Detlefsen, Mayhoff*: calumniam aut om. codd.

⁴ conversa *Detlefsen, Mayhoff*: conversam (-um) codd.

⁵ quis codd.: qui *Gelenius. Ante ieiunus add. si V² Sillig. Detlefsen.*

^a The Achilles tendon.

^b Mayhoff would add "in vinegar," suggested by a parallel passage in Dioscorides. This addition would make more natural the *et* before *cum*.

strangury by three-oboli doses of agaric in one cyathus of old wine, by two-drachmae doses of root of trefoil in wine, and by one-drachma doses of daucum or of its seed. Sciatica is cured by pounded seed and leaves of erythrodanus, by panaces taken in drink and rubbed on the affected part, by polemonia, and by a decoction of the leaves of aristolochia. Agaric indeed cures both the tendon called "broad" ^a and pain in the shoulders, the dose being three oboli taken in one cyathus of old wine. For sciatica cinquefoil is both taken in drink and applied, as is also a decoction of scammony ^b with barley meal added. The seed of either kind of hypericum is taken in wine. Affections and chafings of the seat are cured very quickly by plantain, condylomata by cinquefoil; if however these have already become callous, by cyclamen root in vinegar. The blue anagallis pushes back prolapsus of the anus; the red anagallis on the contrary makes it worse. Cotyledon is wonderfully good treatment for condylomata and for piles; so is, for swollen testicles, the application of root of acoron, pounded and boiled down in wine. Cato ^c says that those carrying on their persons Pontic wormwood never suffer from chafing between the thighs. Other authorities add pennyroyal to the list of remedies; this, gathered by a fasting man and tied behind him, prevents pains in the groin or relieves those which have begun already.

LIX. Inguinalis ("groin-wort"), called by some *Inguinalis*, argemonion, a plant growing anywhere in briar patches, needs only to be held in the hand to be of benefit.

PLINY : NATURAL HISTORY

- LX. Panos sanat panaces ex melle, plantago cum sale, quinquefolium, persollatae radix ut in strumis, item damasonium, verbascum cum sua radice tusum. vino aspersum folioque involutum et ita in cinere
 93 calefactum ut inponatur calidum. experti adfirmavere plurimum referre, si virgo inponat nuda ieiuna ieiuno et manu supina tangens dicat: Negat Apollo pestem posse crescere cui nuda virgo restinguat, atque ita retrorsa manu ter dicat totiensque despuant ambo. medetur et radix mandragorae ex aqua, radice scamoniae decoctum cum melle, sideritis cum adipe vetere contusa, marruvium cum axungia vetere, vel chrysippios cum ficis pinguibus. et haec ab inventore habet nomen.
- 94 LXI. Venerem in totum adimit, ut diximus, nymphaea Heraclia, eadem semel pota in XL dies, insomnia quoque veneris a ieiuno pota et in cibo sumpta. inlita quoque radix genitalibus inhibet non solum venerem sed et affluentiam geniturae. ob id corpus alere vocemque dicitur. adpetentiam veneris facit radix e xiphio superior data potui¹ in vino, item quam cremnon agrion appellant, ormenos agrios cum polenta contritus.

¹ potui *cod. d, Mayhoff*: potu *ceteri codd., Detlefsen.*

^a See XXV § 75 and the note in which it is pointed out that Pliny differs (as the present passage clearly shows) from Dioscorides. In fact in the present section of XXVI the two are very unlike.

^b Or, "or." The conjunction *et* often has to be translated in this way.

LX. Superficial abscess is cured by panaces in honey, plantain with salt, cinquefoil, root of persol-lata administered as for scrofula; also by damasonium and by verbascum, pounded with its root, sprinkled with wine, wrapped round with its leaves, and heated, thus prepared, on embers, so that it may be applied hot. Those with experience have assured us that it makes all the difference if, while the patient is fasting, the poultice is laid upon him by a maiden, herself fasting and naked, who must touch him with the back of her hand and say: "Apollo tells us that a plague cannot grow more fiery in a patient if a naked maiden quench the fire;" and with her hand so reversed she must repeat the formula three times, and both must spit on the ground three times. Other cures are mandrake root in water, a decoction of scammony root with honey, sideritis crushed with stale grease, marruvium with stale axle-grease, or chrysippios—another plant named after its discoverer—with plump figs.

*Cures for
superficial
abscesses.*

LXI. *Nymphaea heraclia*, as I have said,^a takes away altogether sexual desire; a single draught of it does so for forty days; sexual dreams too are prevented if it is taken in drink on an empty stomach and ^b eaten with food. Applied to the genitals the root also checks not only desire but also excessive accumulation of semen. For this reason it is said to make flesh and to improve the voice. Sexual desire is excited by the upper part of xiphium root given in wine as a draught; also by the plant called *cremnos agrios* and by *ormenos agrios* crushed with pearl barley.

*Nymphaea
heraclia.*

PLINY : NATURAL HISTORY

- 95 LXII. Sed inter pauca mirabilis est orchis herba
sive serapias, foliis porri, caule palmeo, flore pur-
pureo, gemina radice testiculis simili, ita ut maior
sive, ut aliqui dicunt, tenuior ¹ ex aqua pota excitet
libidinem, minor sive mollior e lacte caprino in-
hibeat. quidam folio scillae esse dicunt levioere ac
minore, caule spinoso. radices sanant oris ulcera,
thoracis pituitas, alvum sistunt ex vino potae.
96 concitatricem vim habet ² satyrium. duo eius genera :
una longioribus foliis quam oleae, caule quattuor
digitorum, flore purpureo, radice gemina ad formam
hominis testium alternis annis intumescente ac
residente. altera satyrios orchis cognominatur et
†feminam ³ esse creditam.† distinguitur inter-
nodiis et ramosiore frutice, radice fascini. nascitur
fere iuxta mare. haec tumores et vitia partium

¹ tenuior *codd.* : durior *Caesarius* : plenior *ex Dioscoride coni.* *Mayhoff.* *Vide notam.*

² habet *codd.* : habet et *Mayhoff.*

³ feminam esse creditam *codd.* : feminam esse creditur *Dellefsen* : femina esse credita est *Mayhoff*, qui invenio excidisse *coni.* : feminam esse credunt *coni.* *Warmington.* *Fortasse* femina esse creditur.

^a All the MSS. have *tenuior*, a word that is scarcely a contrast to *mollior*. Dioscorides says of one ὄρχις, not the one equated with σεραπίας, (ἔχει) ῥίζαν βολβοειδῆ, ἐπιμήκη, διπλὴν, στενὴν, ὡς ἐλαίαν, τὴν μὲν ἄνω, τὴν δὲ κατωτέρω, καὶ τὴν μὲν πλήρη, τὴν δὲ μαλακὴν καὶ ῥυσὴν (III 126). There would be much to be said for the conjectures *durior* and *plenior* were it not that *tenuior*, the reading of all MSS., is far harder to understand. Perhaps Pliny had a Greek text with στενή as epithet of ἡ ἄνω ῥίζα. Pliny's words imply the existence of differences in nomenclature.

^b I have left the ungrammatical reading of the MSS. unaltered, but obelized.

LXII. But very high on the list of wonders is the *Orchis*. plant orchis, or serapias, which has the leaves of leek, a stem a span high, and a purple flower. The root has two tubers, like testicles, so that the larger, or, as some put it, the thinner,^a taken in water excites desire; the smaller, or softer, taken in goat's milk checks it. Some say that this orchis has leaves like those of the squill, only smoother and smaller, and a prickly stem. The roots cure sores in the mouth and phlegm on the chest; taken in wine they are constipating. *Satyrion* is a sexual stimulant. There are two kinds of it: one with longer leaves than those of the olive, a stem four fingers high, purple blossom, and a double root shaped like human testicles, which swells and subsides again in alternate years. The other kind has the further name of satyrios orchis, and is thought to be female.^b It is distinguished from the former kind by the spaces between the joints, by its more branchy, bushy shape^c; also by its root's being like a phallus.^d The plant is generally found near the sea.

^c Or, "by its stem's having many branches." The word *frutex* sometimes = *caulis*, but here I think it means the "skeleton" as it were of a small bush or shrub.

^d To judge from Mayhoff's critical note the MS. E has *fascinis*, the vulgate before Sillig *fascinis utili*, and the other MSS. (*radice*) *fascini*. The meaning is surely that the root is not, like the former kind, *ad formam hominis testium*, but like a phallus. So the Latin *Thesaurus*. I think, however, that the MSS. reading, retained without comment by both Detlefsen and Mayhoff, can scarcely be quite right. Perhaps we should add *simili*, which would explain the *fascinis utile* of the vulgate, *fascini simili* being not very unlike *fascinis utili*. It is strange that this account of satyrion should appear here, just before the chapter (LXIII) in which that plant is described. Commentators think that Pliny has been con-

PLINY : NATURAL HISTORY

earum cum polenta inlita sedat vel per se trita. superioris radix in lacte ovis colonicae data nervos intendit, eadem ex aqua remittit.

- 97 LXIII. Graeci satyrion foliis lilii rubris, minoribus et tribus non amplius e terra exeuntibus tradunt, caule levi, cubitali, nudo, radice gemina, cuius inferior pars et maior mares gignat, superior ac minor feminas. et aliud genus satyrii erythraicon appellat, semine viticis maiore, levi, duro, radice cortice rufo; intus album includi sapore subdulce. fere¹ in
98 montuosis inveniri. venerem, etiam si omnino manu teneatur radix, stimulari, adeo² si bibatur in vino austero, arietibus quoque et hircis segnioribus in potu dari, et a Sarmatia³ equis ob adsidium laborem pigrioribus in coitu, quod vitium prosedamum vocant. restinguit vim eius aqua mulsa aut lactuca sumpta.
99 in totum quidem Graeci, cum concitationem hanc volunt significare, satyrion appellant, sic et crataegin cognominantes et thelygonon et arrenogonon, quarum semen testium simile est. tithymalli quoque ramorum medullam habentes ad

¹ fere VRd, *Mayhoff*: fertur E, *Dellefsen*.

² adeo *codd.*: magis adeo *vulg.*: at eo magis *coni. Mayhoff*.

³ Sarmatia *Ianus, Dellefsen, Mayhoff*: Sarmata aut Sarmat *codd.*: Sarmatis *vulg.*

fused by the fact that Greeks gave the name satyrion to all plants supposed to be aphrodisiac. See § 99: *in totum quidem Graeci . . . testium simile est*. Indeed the whole of § 96, *concitatricem . . . remittit*, reads like a hasty afterthought, and contains two ungrammatical phrases, if we can trust our best MSS.

^a The punctuation of the Latin text is that of Mayhoff; it is based on the Greek of Dioscorides.

^b The reading is very uncertain. We should certainly expect the vulgate *a Sarmatis*, "by the Sarmatians," but *a*

This latter kind, if applied with pearl barley or by itself after being pounded, relieves swellings and affections of the privy parts. The root of the former kind, taken in the milk of a farm-yard sheep, causes erections; taken in water, however, it makes them subside.

LXIII. The Greeks speak of a satyrion that has leaves like those of the lily, but red, smaller, and springing from the ground not more than three in number, a smooth, bare stem a cubit high, and a double root, the lower, and larger, part favouring the conception of males, the upper, and smaller, the conception of females. Yet another kind of satyrion they call erythraicon, saying that its seed is like that of the vitex, but larger, smooth and hard; that the root is covered with a red rind, and contains ^a a white substance with a sweetish taste, and that the plant is generally found in hilly country. They tell us that sexual desire is aroused if the root is merely held in the hand, a stronger passion, however, if it is taken in a dry wine, that rams also and he-goats are given it in drink when they are too sluggish, and that it is given to stallions from Sarmatia ^b when they are too fatigued in copulation because of prolonged labour; this condition is called prosedamum. The effects of the plant can be neutralized by doses of hydromel or lettuce. The Greeks indeed always, when they wish to indicate this aphrodisiac nature of a plant, use the name satyrion, so applying it to crataegis, thelygonon, and arrenogonon, the seeds of which resemble testicles. Again, those carrying on their persons the pith of tithymallus branches are

Sarmatia, “from Sarmatia” (i.e. Sarmatian stallions), gives a good sense.

PLINY : NATURAL HISTORY

venerem prouiores fieri dicuntur. prodigiosa sunt quae circa hoc tradit Theophrastus, auctor alioqui gravis, septuageno coitu durasse libidinem contactu herbae cuiusdam cuius ¹ nomen genusque non posuit.

- 100 LXIV. Sideritis adalligata varices minuit et sine dolore praestat.² podagrae morbus rarior solebat esse non modo patrum avorumque memoria, verum etiam nostra, peregrinus et ipse, nam si Italiae fuisset antiquitus, Latinum nomen invenisset. insanabilis non est credendus, quippe quoniam et in multis sponte desiit et in pluribus cura. medentur radices panacis cum uva passa, sucus hyoseyami cum farina vel semen, scordion ex aceto, hiberis uti dictum est, verbenaca cum axungia trita, eyclamini radix, cuius
101 decoctum et pernionibus. podagras refrigerat radix e xiphio, semen e psyllio, cicuta cum lithargyro aut axungia, aizoum in primo impetu podagrae rubentis, hoc est calidae. utrilibet vero convenit erigeron cum axungia, plantaginis folia trita addito sale modico, argemonia tusa ex melle. medetur et verbenaca inlita, aut si pedes in aqua macerentur in qua decocta
102 sit, LXV. et lappago, similis anagallidi, nisi esset ramosior ac pluribus foliis, gravis odoris. quae talis

¹ cuiusdam cuius *multi codd.* : cuius VE, *Mayhoff*.

² praestat] persanat f, *Hard*.

^a See *H.P.* IX 18, 9.

^b Book XXV § 88.

^c The phrase *quae talis est* is generally taken to mean that *mollugo* is the name of the *lappago* which is like *anagallis*. But the Latin can scarcely mean that there are more than

said to become thereby more excited sexually. The remarks on this subject made by Theophrastus,^a generally a weighty authority, are fabulous. He says that the lust to have intercourse seventy times in succession has been given by the touch of a certain plant whose name and kind he has not mentioned.

LXIV. Tied to the part as an amulet sideritis reduces varicose veins and does its work without pain. Gout was a rarer disease within the memory, not only of our fathers and grandfathers, but also of our own generation. It is also itself a foreign complaint; had it existed in Italy in early times it would have received a Latin name. It must not be considered incurable, for many cases have been cured without treatment, and yet more with it. Useful remedies are roots of panaces with raisins, juice of henbane with meal, or the seed of henbane, scordion in vinegar, hiberis as already prescribed,^b vervain beaten up with axle-grease, and the root of cyclamen, a decoction of which is also good for chilblains. Cooling applications for gouty pains are made from xiphion root, psyllion seed, hemlock with litharge or axle-grease, and aizoïm for the first onset of red, that is hot, gout. Good for either kind however is erigeron with axle-grease, plantain leaves beaten up with a little salt added, and argemonia pounded with honey. Vervain too may be applied as a remedy—or the feet may be soaked in the water in which it has been boiled—LXV. or the lappago that is like anagallis, but more branchy and leafy, and with a strong smell. This kind of plant ^c is

*Cures for
Gout.*

one kind of *lappago*, and I feel certain that the hiatus of 76 letters after *gravis* in E once contained a description of a plant to which *talīs* refers.

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est mollugo vocatur; similis, sed asperioribus foliis, asperugo. superioris et sucus p̄ X l in vini duobus cyathis cotidie sumitur.

- 103 LXVI. Praecipue vero liberat eo malo phycos thalassion, id est fucus marinus, lactucae similis, qui conchyliis substernitur, non podagrae modo sed omnibus articulorum morbis inpositus priusquam arefiat.¹ tria autem genera eius: latum et alterum longius, quadamtenus rubens, tertium crispis foliis, quo in Creta vestes tingunt, omnia eiusdem usus.
- 104 Nicander ea et adversus serpentes in vino dedit. salutare est et semen eius herbae quam psyllion appellavimus madefactum aqua, admixtis in heminam seminis resinae Colophoniae coclearibus duobus, turis uno. laudantur et mandragorae folia cum polenta tunsa. talis vero tumentibus limus aquaticus cum oleo subactus mire prodest, articulis sucus ex centauro minore, idem nervis utilissimus, item centauro.
- 105 vettonica nervis discurrentibus per scapulas, umeris, spinae, lumbis, pota ut in iocinere, articulis quinquefolium inpositum, mandragorae folia cum polenta vel radix recens tusa cum cucumere silvestri vel decocta in aqua, digitorum in pedibus rimis polypodii radix, articulis sucus hyoscyami cum

¹ arefiat VT *Ianus, Detlefsen, Mayhoff*: exarefiat d r *vulg.*

^a Apparently *mollugo*, but the possibility of a hiatus makes one uncertain.

^b Or, with *exarefiat*, "quite dry."

^c See Dioscorides IV 99: γίνεται τὸ μὲν τι αὐτοῦ πλατύ, τὸ δὲ ὑπόμηκες καὶ ὑποφαινικίζον, τὸ δὲ οὖλον ("curly"). Pliny's *latum* and *longius*, therefore, may refer to the leaves and not to the whole plant. See XIII §§ 135 foll.

called mollugo; like it, but with rougher leaves, is asperugo. The juice of the former ^a is taken daily, the dose being one denarius by weight in two cyathi of wine.

LXVI. The sovereign remedy, however, for this complaint is *phycos thalassion*, or seaweed, which is like lettuce, and is used as a ground-colour for the purple of the murex; it is sovereign, not for gout only, but for all diseases of the joints, if applied before it becomes dry.^b There are moreover three kinds of it: one is broad,^c the second is rather long and inclining to red, and the third, which has curly leaves, is used in Crete to dye cloth. They have all the same medicinal uses. Nicander ^d gave these too in wine for snake bite. A further remedy is the seed, soaked in water, of the plant I have called ^e psyllion: one hemina of such seed is compounded with two spoonfuls of Colophonian resin and one spoonful of frankincense. Another highly valued remedy is made from leaves of mandrake pounded with pearl barley. When however ankles swell, water-mud kneaded with oil makes a wonderfully good plaster; for the joints the juice of the smaller centaury is very beneficial, as it is also for the sinews; beneficial too is centauris. For the sinews running across the shoulder blades, for the shoulders, for the backbone and the loins, a good remedy is betony, taken as prescribed for the liver^f; for the joints an application of cinquefoil, leaves of mandrake with pearl barley, or its root pounded fresh with wild cucumber or boiled down in water; for chaps on the toes the root of polypodium; for the joints juice of henbane with axle-grease,

^a *Theriaca* 845.

^e Book XXV § 140.

^f See XXVI § 35.

PLINY : NATURAL HISTORY

- axungia, amomon suco decocto, item centunculus decocta vel muscus recens ex aqua obligatus donec inarescat, item lappae boariae radix e vino pota.
- 106 cyclaminos decocta in aqua perniunculos curat omniaque alia frigoris vitia, perniunculos et cotyledon cum axungia, folia ex batrachio, epithymi sucus. clavos pedum extrahit ladanum cum castoreo, verbenaca ex vino.
- 107 LXVII. Nunc peractis malis quae membratim sentiuntur dicemus de iis quae totis corporibus grassantur. remedia autem haec communia invenio: ante omnes¹ potandam² dodecatheum, de qua diximus, deinde panacis omnium generum radices, peculiariter longinquis morbis et semen interaneorum vitiis, ad omnes vero dolores corporis sucum e scordio, item vettonicae quae pota colorem plumbeum corporis privatim emendat, gratiorem reducit.
- 108 LXVIII. Geranion aliqui myrrin, alii myrtidan appellant. similis est cicutae, minutioribus foliis et caule brevior, rotunda, saporis et odoris iucundi.

¹ ante omnes *codd.*, *Detlefsen*: aput auctores *Mayhoff*, qui multa similia citat ex *Plinio*, et colon post invenio om.

² potandam *Hard.*, *cod. Dal.*, *Detlefsen*: potanda *E.*, *Mayhoff*: potam aut potu multi *codd.*

^a There are a few peculiarities in this part of Pliny that should be mentioned, although no explanation (except haste) suggests itself. We have the formless structure of § 105, the repetition of *perniunculus*, and its (apparently) sole use in this section.

^b With *Mayhoff*'s reading: "I find in my authorities that the following should be taken in drink." The *deinde* of the next clause suggests that the MSS. reading *ante omnes* is correct, and the gender of *potandam* is explained by the fact that *dodecatheum* is a *herba*.

the decocted juice of amomum, a decoction too of centunculus, or fresh moss soaked in water and bound round the part until the water dries off, and also root of lappa boaria taken in wine. Cyclamen boiled down in water is a good remedy for chilblains and for all other affections caused by cold; for chilblains cotyledon too with axle-grease, leaves of batrachion and the juice of epithymum. Corns are extracted from the feet by ladanum mixed with beaver-oil, and by vervain in wine.^a

LXVII. Having now finished the complaints that affect separate limbs I shall go on to describe those that attack the whole body. Of remedies that are generally useful I learn that the best is dodecatheum, to be given in drink,^b a plant I have already described^c; next the roots of all kinds of panaces, especially good for long illnesses, and the seed is used for intestinal complaints; for general bodily pains however juice of scordion and also of betony, which taken in drink is specific^d for removing a leaden colour of the skin and restoring a more pleasing complexion.

*Remedies
diseases of
the whole
body.*

LXVIII. Geranion is called by some myrris^e and by others myrtidas. It resembles hemlock, but with smaller leaves and shorter in the stem, round, and of a pleasant taste and smell. In this way

^c See XXV § 28.

^d For *privatim* see note on XXIV § 28.

^e According to Dioscorides another plant; he says (IV 115): *ἔοικε κωνείῳ, ρίζαν δὲ ἔχει ὑπομήκη, ἀπαλὴν, περιφερῆ, εὐώδη, ἡδεῖαν βρωθῆναι*. "Round" is a strange word to apply to the plant, and Urlichs would add (cf. the *περιφερῆ* of Dioscorides) *radice* before *rotunda*. Others have emended to *rotundo* (sc. *caule*). The leaves however are round.

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- nostri sic eam tradunt, Graeci foliis paulo candi-
dioribus quam malvae, caulibus tenuibus, pilosis,
ramosam ex intervallis, binum palmorum, et in his
folia ¹ inter quae in cacuminibus capitula sint gruum.
109 alterum genus foliis anemones, divisuris longioribus,
radice mali modo rotunda, dulci, reficientibus se ab
imbecillitate utilissima, et fere talis vera est.
bibitur contra phthisis drachma in cyathis vini tribus
bis die, item contra inflationes, et cruda idem prae-
stat. sucus radiceis auribus medetur, opisthotonis
semen drachmis quattuor cum pipere et murra
110 potum. phthisis sanat et plantaginis sucus, si biba-
tur, et ipsa decocta in cibo ²; ex sale et oleo a somno
matutino refrigerat. eadem datur iis quos atrophos
vocant interpositis diebus, vettonica vero phthisicis
ecligmate cum melle, fabae magnitudine, agaricum
potum obolis duobus in passo, vel daucum cum cen-
taurio maiore in vino. phagedaenis—quod nomen
sine modo esurientium est, et alias ulcerum—tithy-
malli medentur cum sesamis sumpti.
111 LXIX. Inter mala universi corporis vigiliae sunt
plerisque. harum remedio monstratur panaces,
clymenos, aristolochia odore et peruncto capite,

¹ folia VR : folius E *vulg.* : esse in his folia *coni.* Mayhoff.

² decocta in cibo;] *sic ex Dioscoride (Eup. II 38) dist.* Mayhoff.

^a Dioscorides (III 116) describes two kinds of γεράνιον. Of the first he says φύλλον ὅμοιον ἀνεμώνῃ, ἐσχισμένον, μακρότερον δέ. This is Pliny's second kind, and *divisuris longioribus* looks as though he mistranslated ἐσχισμένον, μακρότερον δέ, unless we emend Pliny, and read *divisis, longioribus*. Of Pliny's first kind, the second of Dioscorides; the latter says : καυλία λεπτά, χρωώδη, δισπίθαμα, φύλλα μολόχῃ ἐμφερῇ καὶ ἐπ'

it is described by our Roman authorities; but Greeks^a say that it has leaves a little lighter in colour than those of the mallow, thin stems, and downy, with branches at intervals and two spans long; on them are the leaves, among which on the tips of the stems are miniature heads of cranes. A second kind has leaves like those of anemone, which are marked with rather long incisions, and a round root like an apple, sweet, and very beneficial to convalescents. The last seems to be the true geranium. It is taken in drink for consumption twice a day in doses of one drachma in three cyathi of wine; the same prescription is good for flatulence, and eaten raw the plant has the same effect. The juice of the root is good for ear trouble; for opisthotonic tetanus four-drachmae doses of seed are taken in drink with pepper and myrrh. Consumption is cured too by drinking plantain juice, and by plantain itself boiled and taken as food. Eaten with salt and oil on waking from sleep in the morning it is very refreshing. It is also given every other day to those who we say are "wasting away," but to consumptives we give betony made up with honey into an electuary of the size of a bean, or agaric in raisin wine in two-oboli doses, or daucum with the greater centaury in wine. Cases of phagedaena, a word meaning bulimia as well as rodent ulcer, are treated by tithymallus with sesame.

LXIX. Of the maladies that affect the whole body sleeplessness is the most common. As remedies for it are recommended panaces, clymenos, aristolochia—by the smell or by bathing the head—aizoïm, that is

ἀκρων τῶν μασχαλῶν ἐξοχὰς τινας ἀνανεινευκίας, ὡς γεράνων κεφαλὰς.

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- aizoum sive sedum, si involutum panno nigro ignorantis pulvino subiciatur, et onothera sive onear, hilaritatem adferens in vino, amygdalae folio, flore rosaceo, fruticosa, longa radice et, cum siccata est, vinum olente. haec in potu data feras quoque mitigat. cruditates quae nausiam faciunt digerit vettonica, eadem pota a cena concoctionem facit, in oxymelitis cyathis tribus drachmae pondere et crapulam discutit, item agaricum post cibum in aqua calida potum. paralyisin vettonica sanare dicitur, item hiberis ut dictum est. eadem et torpentibus membris prodest, item argemonia omnia quae¹ secari periclitentur discutiendo.
- 113 LXX. Comitiales sanantur² panacis³ quam heraclion diximus radice⁴ pota cum coagulo vituli marini ita ut sint panacis tres partes. sanat et⁵ plantago⁶ pota, vettonica in oxymelite⁷ drachma vel agaricum⁸

¹ omnia quae R (?), *Gelenii editio Basileensis*; omnia quaeque VdE: omnia quaeque *Detlefsen*: omniaque, quae *Mayhoff, vulg.*

² sanantur Vd *vulg.*: sanant aliquot *codd.*

³ panacis *codd., vulg.*: panaces *Sillig, Detlefsen.*

⁴ radice VRd *Sillig*: radices E.

⁵ sanat et ego transposui; ante archezostis *codd.*

⁶ plantago *codd.*: plantagine *Mayhoff.*

⁷ oxymelite *Gelenius*: oxymeliti aut oxymelitis *codd.*

⁸ agaricum *Gelenius*: agaricon *Sillig*: agarico VRd: agarici E r *vulg.*

^a Or, "because taken in wine it dispels depression." Perhaps Pliny knew that depression was a common cause of sleeplessness. In any case it is a strange phrase to be applied to a cure for insomnia, although there can be no doubt about the reading, for Theophrastus has (IX 19 § 1): ἡ δὲ τοῦ ὀνοθήρα ρίζα δοθείσα ἐν οἴνῳ πρῶτον καὶ ἱλαρώτερον ποιεῖ τὸ

houseleek, wrapped in black cloth and placed under the pillow without the knowledge of the patient. Onothera also, that is onear, is soporific although exhilarating in wine,^a having leaves like those of the almond tree, rose-coloured blossom, a bushy shape and a long root, which when dried smells of wine, and given in their drink soothes even wild beasts. Indigestion causing nausea is relieved by betony; it also if taken in drink after dinner promotes digestion; in doses of one drachma by weight in three cyathi of oxymel it also removes the after-effects of drink, as does agaric too taken in hot water after food. Betony is said to cure paralysis and so does hiberis as prescribed previously.^b It is also good for numbness of the limbs; so also is argemonia, by removing all symptoms indicating that surgical treatment (i.e. venesection) may be necessary.^c

LXX. Epilepsy is cured by the root of the panaces *Epilepsy.* I have called heraclion^d taken in drink with seal's rennet; three quarters of the mixture must be panaces. Other cures are plantain in drink, doses of one drachma of betony or three oboli of agaric in

ῥῆθος. The language of Dioscorides (IV 117) does not help much, although he mentions the soothing effect on wild beasts. It might be thought that not all the remedies given in this chapter are soporific. After *cruditates*, indeed, come some miscellaneous ones, but onothera is surely added (by the *et*) to the list of soporifics.

^b See XXV § 88.

^c I have kept the reading of R (queried as doubtful by Mayhoff) and of Gelenius because it avoids the dislocation of thought (violent even for Pliny) involved in the vulgate and accepted by Mayhoff. The use of argemonia is thus confined to the cure of paralysis, or partial paralysis.

^d See XXV § 32.

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- obolis tribus, folia¹ quinquefolii ex aqua, archezostis, sed anno pota. sanat et baccaris radix arida in pulverem contrita cyathis tribus cum coriandri
 114 uno in aqua calida, et centunculus trita in aceto aut melle aut in aqua calida, verbenaca ex vino pota, hysopi bacae ternae contritae in aqua potae diebus xvi, peucedanum cum coagulo vituli marini aequis portionibus potum, quinquefolii contrita folia ex vino pota diebus xxx, vettonicae farina p̄. X III cum aceti scillitici² cyatho, mellis Attici uncia, scamonium obolis duobus cum castorei drachmis quattuor.
- 115 LXXI. Febres frigidas leviores facit agaricum potum in calida aqua, tertianas sideritis cum oleo, item ladanum quod in segetibus nascitur contusum, plantago ex aqua mulsa duabus horis ante accessionem pota binis drachmis vel sucus radicis madefactae vel tusae, vel ipsa radix trita in aqua ferro calfacta. quidam ternas radices in tribus cyathis
 116 aquae dedere. eadem in quartanis quaterna fecerunt. buglosso inarescente, si quis medullam ex

¹ folia *codd.* : foliis *Mayhoff.*

² scillitici V²dEr *vulg.* : scillitis *Detlefsen* : scillini *Mayhoff*, qui scillitae *coni.*

^a The text here is in a very disturbed state, and the editors are divided, Detlefsen adopting *sanant* followed by nominatives and Mayhoff *sanantur* followed by ablatives. The disturbance may have been caused by the accidental omission of *sanat et* before *plantago* and its later re-insertion two lines further on. The various readings of our MSS. were probably due to conscious efforts to restore the grammar. Both Detlefsen and Mayhoff adopt *oxymelitis*; but both *drachma* and *obolus* are weights, not measures of capacity, and the sense requires that the amount of betony and agaric should be given, not the amount of oxymel in which they were taken. Professor Andrews would keep the order of words in the MSS., com-

oxymel,^a leaves of cinquefoil in water, and also archezostis, but the last must be taken in drink for a year. Other cures are dried root of baccar crushed to powder and taken in hot water in doses of three cyathi with one of coriander, pounded centunculus in vinegar or honey or hot water,^b vervain taken in wine, three crushed berries of hyssop taken in water for sixteen days, equal quantities of peucedanum and seal's rennet taken in drink, crushed leaves of cinquefoil taken in wine for thirty days, powdered betony in doses of three denarii by weight with a cyathus of squill vinegar and an ounce of Attic honey,^c scammony in doses ^d of two oboli with four drachmae of beaver-oil.

LXXI. The chills of fever are relieved by agaric *Fevers.* taken in hot water, tertian fevers by sideritis with oil, by crushed ladanum, a plant found in grain fields, by plantain in hydromel taken in two-drachma doses within two hours before a paroxysm, juice of its root soaked or pounded, or by the root itself beaten up in water ^e heated with hot iron. Some physicians have prescribed doses of three roots in three cyathi of water, changing three to four if the fever is quartan. If one takes, when bugloss is withering, mentioning that Pliny seems to say: "Yes, archezostis does cure, but it takes a long time."

^b It is often difficult to see whether in such phrases the adverbial expression goes with the participle *tritum* or not. Here for instance the Bohn translators have "bruised in vinegar." See note § 115.

^c I take *uncia* to be ablative with *cum* understood, but as far as the grammar is concerned, *mellis Attici uncia* might be a new remedy, with *uncia* nominative.

^d Littré translates as I do, but the Bohn translators think that the numbers refer to the proportions of the prescription.

^e Perhaps, "pounded root itself in water etc."

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- caule eximat dicatque ad quem liberandum feбри id faciat et alliget ei septem folia ante accessionem, aiunt feбри liberari, item vettonicae drachmam ¹ in aquae mulsae cyathis tribus vel agaricum, maxime in iis feбribus quae cum horrore veniant. quinque-folii folia quidam terna tertianis dedere, quaterna quartanis, plura ceteris, alii omnibus tres obolos cum
 117 pipere ex aqua mulsa. verbenaca quidem et iumentorum feбribus in vino medetur, sed in tertianis a tertio geniculo incisa, quartanis a quarto. bibitur et semen hyperici utriusque in quartanis et horroribus, vettonicae farina, quae omnes horrores coerces, item panaces adeo excalefactoria natura ut per nivem ituris bibere id perunguique eo praecipiant. et aristolochia perfrictionibus resistit.
- 118 LXXII. Phreneticos somnus sanat, qui continget ² peucedano ex aceto capiti infuso, anagallidum suco. e diverso lethargicos excitare labor est; hoc praestant euphorbeum ex aceto naribus tactis, peucedani sucus. contra insanias vettonica bibitur. carbunculos rumpit panaces, sanat vettonicae farina ex

¹ Ante drachmam lacunam indicat Mayhoff, qui dari supplendum esse putat.

² continget aliquot codd., Dellefsen : contingit E r vulg., Mayhoff.

^a Mayhoff supposes that there is a lacuna before *drachmam* : “*excidit dari vel aliud quid, unde pendeat drachmam.*” Possibly *drachmam* is governed by *dedere* above. Both *eadem* . . . *facerent* and *buglosso* . . . *liberari*—especially the latter—look like later additions. Pliny, who was fond of parentheses, may have added one or both of them as an after-thought, overlooking the fact that so doing upset the syntax of the passage.

the pith out of a stem and says that he does it to free so and so from fever, attaching to the patient seven leaves before a paroxysm begins, he is freed, it is said, from the fever. Another remedy is betony in doses of one drachma ^a in three cyathi of hydromel, or agaric, especially in fevers attended with violent shivers. Some have prescribed doses of three cinquefoil leaves for tertians, of four for quartans, and of more for the other fevers; others prescribe for all three oboli with pepper in hydromel. Vervain in wine indeed is a remedy for fever even of beasts of burden, but for tertians the plant must be cut at the third joint, and for quartans at the fourth. For quartans and feverish shivers is taken in drink the seed of either kind of hypericum, powdered betony, which checks all shiverings, and panaces also, which is of such a heating nature that those about to travel through snow are recommended to take it in drink and to be rubbed with it. Violent chills ^b are also checked by aristolochia.

LXXII. Phrenitis ^c is cured by sleep, which will be induced by pouring on the head an infusion of peucedanum in vinegar, or the juice of either anagallis. On the other hand it is difficult to awaken sufferers from lethargus ^c; this is done by touching the nostrils with euphorbeum in vinegar, or with the juice of peucedanum. For delirium ^c betony is taken in drink. Carbuncles are made to burst by panaces, and cured by powdered betony in water, or

^b Either the chills of malarial fever, or perhaps the shiverings of a violent cold.

^c *Phrenitis*, *lethargus*, and *insaniae* seem to be used in this chapter of mild symptoms, and not of the severe diseases often denoted by the terms.

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aqua aut brassica cum ture, frequenti potu calidae, vel e carbone in conspectu restincto favilla digito sublata et inlita, vel plantago tusa, tithymallus characites.¹

- 119 LXXIII. Hydropicos sanat panaces, plantago in cibo, cum prius panem siccum comederint sine potu, vettonica drachmis duabus in duobus cyathis vini aut mulsi, vel agaricum vel semen lonchitidis duabus lingulis ex aqua potum, psyllion ex vino, anagallidum sucus, cotyledonis radix e mulso, ebuli recentis radix excussa tantum nec colluta, quod duo digiti comprehendant, ex vini veteris caldi hemina, trifolii radix drachmis duabus in vino, tithymallum platyphyllon cognomine, semen hyperici quod caros appellatur, 120 acte, quam esse ebulum putant quidam, radice contrita in vini cyathis tribus, si febris absit, vel semine ex vino nigro, item verbenaca fasciculo manus plenae in aqua decocta ad dimidias. prae- cipue tamen chamaeactes sucus aptissimus creditur. eruptiones pituitae emendant plantago, cyclamini radix e melle, ebuli folia trita e vetere vino—inposita etiam boam sanant, id est rubentes papulas—pruriginem sucus strychni inlitus.

¹ characites *codd.*, *Detlefsen*: characias *Hard.*, *Mayhoff*. Cf. §§ 62, 146.

^a The *carbo* acts on the *carbunculus* by imitative magic.

^b Or, "the crushed seed in dark (i.e. red) wine," *contrito* being understood from *contrita* above.

by cabbage and frankincense with frequent draughts of hot water; or the ash from a burning coal^a extinguished in the patient's presence may be picked up with a finger and applied. Other remedies are pounded plantain and tithymallus characites.

LXXIII. Remedies for dropsy are: panaces; *Dropsy.* plantain as food, after dry bread without any drink; two-drachma doses of betony in two cyathi of wine or honey wine; agaric, or lonchitis seed, two spoonfuls for a dose taken in water; psyllion in wine; juice of either anagallis; root of cotyledon in honey wine; root of fresh ebulum, shaken only and not washed, a two-finger pinch for a dose, taken in a hemina of old wine and hot water; root of trefoil in wine, two drachmae for a dose; the tithymallus called platyphylon; seed of the hypericum known as caros; acte, which some identify with ebulum, the root, if there is no fever, being crushed in three cyathi of wine, or the seed^b being taken in dark wine; vervain also, a good handful being boiled down in water to one half. The most efficacious remedy however is believed to be the juice of chamaeacte. An outbreak^c of phlegm is relieved by plantain, by cyclamen root in honey, and by pounded leaves of ebulum in old wine. An application of the last cures *boa*^d also, an eruption of red pimples, and the juice of strychnos applied as liniment cures itch.

^c See list of diseases. Here perhaps nasal catarrh, but elsewhere (XXV § 61) pituitous eruptions on the body.

^d The Latin *Thesaurus* gives a full list of references to *boa*, which was the name of more than one complaint. In Pliny it means some kind of eczema. The name was supposed to be connected with *bos*, because ox dung was used as a remedy. See XXVIII § 244.

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- 121 LXXIV. Igni sacro medentur aizoum, folia trita cicutae, mandragorae radix—secatur¹ in asses ut cucumis, primumque super mustum suspenditur, mox in fumo, dein tunditur²—e vino aut aceto. prodest et vino myrteo fovere, mentae sextans, vivi sulphuris uncia, ex aceto simul trita, fuligo ex aceto. ignis sacri plura sunt genera, inter quae medium hominem ambiens qui zoster vocatur et enecat,³ si cinxit. medetur plantago cum creta Cimolia et peristereos per se, radix persollatae, aliis quae serpunt cotyledonis radix cum mulso, aizoum, sucus e linozosti ex aceto.
- 122 LXXV. Radix polypodi inlita⁴ luxatis medetur doloremque et tumores tollunt semen psyllii, folia plantaginis trita, sale modice addito, verbasci semen ex vino decoctum tritum, cicuta cum axungia. folia

¹ secatur *Hard. ex cod. Murb.* : siccatur *codd.*

² tunditur (*aut tuditur*) *codd.* : teritur *coni. Mayhoff.* Cf. *Theophrasti H.P.* IX ix 1 : τὴν δὲ ῥίζαν (τοῦ μανδραγόρου) πρὸς ἐρυσίπelas ξυσθεῖσάν τε καὶ ὄξει δευθεῖσαν.

³ et enecat *E r, Mayhoff, vulg.* : et necat *multi codd.* : enecat *Ianus, Dellefsen.*

⁴ radix polypodi inlita *cum priore sententia coniungit Dellefsen.*

^a Or, "are gourds."

^b The emendation *teritur* is supported by Theophrastus IX ix 1 : ῥίζαν . . . ξυσθεῖσάν "scraped"; but though he and Pliny are very similar they are also in some respects strangely unlike. Contrast for instance *secatur in asses ut cucumis etc.* with τέμνουσι δὲ τροχίσκους ὥσπερ ῥαφανίδος καὶ ἐνείραντες ὑπὲρ γλεύκους ἐκρέμασαν ἐπὶ καπνῷ. Hort translates : "they cut little balls of it, as of radishes, and making a string of them hang them up in the smoke over must." Mayhoff joins his *teritur* with *e vino aut aceto*. But as *teritur* has no MS. authority, and the parenthesis gives a very Plinian

LXXIV. Erysipelas is treated with aizoüm, *Erysipelas*. pounded leaves of hemlock, and root of mandrake—it is cut into slices as is cucumber,^a hung first over must, then in smoke, and finally pounded^b—taken in wine or vinegar. It is beneficial too to foment with myrtle wine, or to use as an ointment two ounces of mint with one ounce of native sulphur beaten up together in vinegar, or soot mixed with vinegar. There are several kinds of erysipelas, among them one called zoster,^c which goes round the patient's waist, and is fatal if the circle becomes quite complete. Remedies are: plantain with Cimolian chalk, peristereos by itself and the root of persollata; as remedies for the creeping forms can be used root of cotyledon with honey wine, aizoüm, and the juice of linozostis with vinegar.

LXXV. Root of polypodium made up into liniment is a remedy^d for dislocations, and the pain and swelling are taken away by seed of psyllion, plantain leaves beaten up with a little salt, ground seed of verbascum boiled in wine, and hemlock with axle-grease.

character to the sentence, it seems unwise to resort to emendation. Mayhoff himself suggests that the text may be *tunditur*, *datur*, "is pounded and administered." It is difficult to discriminate between *tero*, *tundo*, *contero* in this connection, except that the first seems to denote less thorough and violent pounding. "Assume that the original text had *secatur* after *radix* and *siccatur* after *fumo*. Take *tunditur* with the following phrase. There is then no difficulty in translating." A. C. A.

^c "The girdle," probably shingles. The Latin *erysipelas* is a much wider term than the English.

^d The reading *medentur* is more strongly supported than *medetur*. Detlefsen, retaining *medentur*, took the words *radix polypodi inlita* as the end of the preceding sentence (§ 121). This change does not agree with Dioscorides.

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ephemeri tuberibus tumoribusque inlinuntur quae etiam tum discuti possunt.

- 123 LXXVI. Morbum regium in oculis praecipue mirari est, tenuitatem etiam¹ densitatemque tunicularum felle subeunte. Hippocrates a septimo die in febris mortiferum signum esse dicit: nos scimus vixisse aliquos etiam ab hac desperatione. fit vero et citra febres expugnaturque centaurio maiore ut diximus poto, vettonica, agarici obolis tribus ex vini veteris cyatho, item verbenacae folia obolis tribus ex
124 vini calidi hemina quadriduo. sed celerrime quinquefolii sucus medetur tribus cyathis potus cum sale et melle.² cyclamini radix drachmis tribus bibitur in loco calido et a perfriktionibus tuto—sudores enim felleos movet—folia tussilaginis ex aqua, semen linozostis utriusque inspersum potioni vel cum absinthio aut cicere decoctum, hysopi bacae cum aqua potae, lichen herba, si, cum sumitur, cetero olere abstineatur, polythrix in vino data, struthion in mulso.

- 125 LXXVII. Passim et in quacumque parte sed maxime incommoda nascuntur qui furunculi vocantur, mortiferum aliquando malum consecris³ corporibus.

¹ etiam VRT f, *Sillig, Mayhoff*: illam d (?) E *vulg.*: etiam illam *Ianus, Detlefsen*.

² cum sale et melle V²Er *vulg.*, *Detlefsen*: om. V¹RTf *Mayhoff*.

³ consecris VTfE *Detlefsen, Mayhoff*: confectis Rd(?) *vulg.*

^a See e.g. *Aphorisms* IV 62.

^b See XXV § 67.

^c Mayhoff with many MSS. would omit "with salt and honey," perhaps rightly, as Dioscorides has nothing to correspond.

^d Or, "random" (A. C. A.). Or, "over a wide area" (of the body).

The leaves of ephemeron are applied in the form of liniment to tumours and swellings that are still able to be dispersed.

LXXVI. The most striking symptom of jaundice *Jaundice.* is the effect upon the eyes; the bile penetrates even between the membranes, thin and close together as they are. Hippocrates^a says that if jaundice supervenes from the seventh day of a fever it is a fatal symptom. I however know of recoveries even from this desperate condition. But cases of jaundice occur without fever, and can be overcome by the greater centaury, taken in drink as I have prescribed,^b by betony, by three-oboli doses of agaric in a cyathus of old wine, and by three-oboli doses of vervain leaves taken for four days in a hemina of warmed wine. The quickest remedy however is juice of cinquefoil taken in doses of three cyathi with salt and honey.^c Three-drachmae doses of root of cyclamen are taken in drink while the patient is in a warm place protected from chilly draughts—the medicine induces sweats full of gall—, and good is done by leaves of tussilago in water, by seed of linostosis of either kind sprinkled in drink or boiled down with wormwood or chick peas, by hyssop berries taken with water, by the herb lichen, the patient during the treatment abstaining from all other vegetables, by polythrix administered in wine, and by struthion in honey wine.

LXXVII. A common^d complaint, affecting any *Boils.* part of the body, but especially an inconvenient part, is what are called boils, sometimes a fatal malady after surgical operations.^e Pounded leaves of

^e *Confectis*: “when the body is run down.”

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remedio sunt pycnocomi folia trita cum polenta, si nondum caput fecerint. discutiunt et folia ephedri inlita.

126 LXXVIII. Fistulae quoque in omni parte serpunt medicorum vitio male sectis corporibus. auxilio est centaurium minus collyriis cum melle decocto additis, plantaginis sucus infusus, quinquefolium cum sale et melle, ladanum cum castoreo, cotyledon cum medulla cervina calefacta et inposita; verbasci radice medulla collyrii tenuitate in fistulam additur vel aristolochiae radix vel sucus tithymalli.

127 LXXIX. Collectiones inflammationesque sanant argemoniae folia inlita, duritias et collectiones omnes verbenaca vel quinquefolium decoctum in aceto, verbasci folia vel radix, hysopum e vino inpositum, acori radix decocto eius fomentibus, aizoom, item quae contusa sint duritiasque et in sinu¹ corporis² illecebra. omnia infixae corpori extrahunt folia

128 tussilaginis, daucum, semen leontopodii tritum in aqua cum polenta. suppurationibus inponuntur pycnocomi folia trita cum polenta vel semen, item orchis. vitia quae sint in ossibus satyrii radice inposita efficacissime sanari dicuntur, nomae et

¹ in sinu VdT *Detlefsen* : sinus E r *vulg.*, *Mayhoff*.

² corporis] Cf. § 141 sinus ulcerum. *Urlichs del.* corporis et ulcerum *scribit*.

^a Literally "creep," from the shape of the fistula. *Litré* has "se creusent."

^b The meaning of *collyriis* here is uncertain. It might be "salves" or "suppositories," but *additis*, and the common occurrence of rectal fistulas, suggest the latter. See too the last sentence of this chapter.

^c Prof. Andrews suggests: "supplemented by suppositories made with boiled honey." But cf. *in fistulam additur* below.

pyncocomon with pearl barley are a remedy if the boil has not yet come to a head. Boils are also dispersed by applications of leaves of ephedron.

LXXVIII. Fistulas also form ^a in any part of the *Fistulas.* body through the careless use of the surgeon's knife. The lesser centaury, if suppositories ^b made from it are inserted with boiled honey, ^c is a help; so is plantain juice poured into them, cinquefoil with salt and honey, ladanum with beaver-oil, and cotyledon with deer's marrow warmed and applied; the pith of verbascum root, cut as slender as a suppository, is inserted into the fistula, or there may be used root of aristolochia or juice of tithymallus.

LXXIX. Gatherings and inflammations are cured *Suppurations and other complaints.* by an application of argemonia leaves, all indurations ^d and gatherings by vervain, or by cinquefoil boiled down in vinegar, by leaves or root of verbascum, by an application of hyssop in wine, by fomenting with a decoction of acoron root, and by aizoïm; for bruises, indurations, and for pitted sores ^e in the flesh the remedy is illecebra. All foreign bodies buried in the flesh may be extracted by leaves of tussilago, by daucum, or by seed of leontopodium beaten up in water with pearl barley. To suppurations are applied leaves, or seed, of pyncocomon beaten up with pearl barley, likewise orchis. For affections of the bones a very efficacious cure is said to be an application of

^a Perhaps in this context "hard abscesses." Cf. Celsus V 25, 11: (*abscessus*) *rubet cum calore et paulo post etiam cum duritia.*

^e *In sinu*, "in the case of a (sore) hollow," is the harder, and therefore perhaps the more likely reading. See (§ 141) *sinus ulcerum* and (XXVII § 63) *explant sinus ulcerum*. *Sinus* is the hollow or cavity formed by a deep ulcer. Perhaps 'sores in a fold (*sinus*) of the body.'

PLINY : NATURAL HISTORY

collectiones omnes fuco maris, priusquam inarescat. et alcimae¹ radix collectiones discutit.

129 LXXX. Ambusta sanantur plantagine, arctio ita ut cicatrix fallat. folia eius in aqua decocta contrita inlinuntur, radices cyclamini cum aizoo, herba ipsa hyperici quod corisum appellavimus.

130 LXXXI. Nervis et articulis convenit plantago trita cum sale, argemonia tusa ex melle. peucedani suco perunguntur spastici, tetanici. nervorum duritiae aegilops suco, doloribus erigeron ex aceto inlinitur, epithymum. spasticis et opisthotonicis perungui semine hyperici, quod caros vocatur, itemque bibere prodest. phrynion dicitur etiam abscissos sanare nervos, si confestim inponatur trita vel mansa. spasticis, tremulis, opisthotonicis alcimae² radix bibitur ex aqua mulsa. sic et rigores excalfacit.

131 LXXXII. Sanguinis profluvia sistit herbae paeoniae semen rubrum—eadem et in radice vis—clymenus vero, sive ore sanguis reiciatur sive naribus, sive alvo fluat sive feminarum utero, item lysimachia pota vel inlita vel naribus indita, item plantaginis semen, quinquefolium potum et inlitum, cicutae semen in nares, si inde fluat, tritum ex aqua inditum,

¹ alcimae V f *Sillig*: alceae *Caesarius*: algmae RE: alginae d T.

² alcimae *Sillig*, *Dettefsen*, *Mayhoff*: alceae *Caesarius*: algmae V: alginae d T: algme *ceteri codd*.

^a See § 85 of this book.

^b There seems to be here a distinction between *trita* and *tusa*, which are sometimes strengthened into *contrita* and *contusa*. Perhaps the former points to breaking up into bits, and the latter merely to crushing. Any distinction is sometimes hard to observe in a translation.

satyriion root, and for corroding sores and gatherings of all kinds an application of sea-weed used while it is still wet. Root of alcima too disperses gatherings.

LXXX. Burns are healed by plantain, and by *Burns.* aretium so well that no scars are seen. A decoction in water of crushed aretium leaves is used as liniment for burns, and so are cyclamen roots with aizöüm, and the plant itself of the hypericum I have called ^a corissum.

LXXXI. Good for sinews and joints are plantain *Sinews.* beaten up with salt and argemonia pounded ^b in honey. Juice of peucedanum is rubbed all over ^c those suffering from spasms or tetanus. For indurations of the sinews juice of aegilops is used as liniment, and for pains of the sinews erigeron (or epithymum) is so used in vinegar. Spasms and opisthotonic tetanus are benefited by thorough rubbing with seed of the hypericum known as caros, and this seed also benefits if taken in drink. Sinews even when severed are said to be healed by phrynion, beaten up or chewed, if it is applied immediately. Spasms, palsy, and opisthotonic tetanus are treated by root of alcima taken in hydromel. So taken it also warms rigors.

LXXXII. Haemorrhage is checked by the red seed *Haemor-* of the plant paeonia—the root also is styptic—but *rhage.* by clymenus when blood is discharged from the mouth or nostrils, or when it flows from the bowels or the uterus; by lysimachia too taken in drink, or applied as liniment, or inserted into the nostrils, also by plantain seed, by cinquefoil taken in drink and ^d applied, by hemlock seed beaten up in water and inserted into the nostrils should there be

^c Or, "thoroughly on."

^d Perhaps "or".

PLINY : NATURAL HISTORY

aizoum, astragali radix. sistit et ischaemon et achillia.

- 132 LXXXIII. Equisætum hippuris Graecis dicta et in pratis vituperata nobis—est autem pilus terrae equinae saetae similis—lienes cursorum extinguit decocta fictili novo ad tertias quantum vas capiat et per triduum heminis pota. unctis esculentis ex ante diem unum interdicitur. Graecorum varia circa hanc
- 133 opinio: alii pinus foliis similem nigricantem eodem nomine appellant, vim eius admirabilem tradentes, sanguinis profluvia vel tacto tantum ea homine sisti, alii hippurin, alii ephedron, alii anabasim vocant, traduntque iuxta arbores nasci et scandentem eas dependere comis iunceis multis nigris ut ex equorum cauda, geniculatis ramulis, folia habere pauca, tenuia, exigua, semen rotundum, simile coriandro, radice
- 134 lignosa, nasci in arbustis maxime. vis eius spissare corpora. sucus sanguinem e naribus fluentem inclusus sistit, item alvum. medetur dysintericis in vino dulci potus cyathis tribus, urinam ciet, tussim, orthopnoeam sanat, item rupta et quae serpunt. intestinis et vesicae folia bibuntur, enterocelen cohibet. faciunt et aliam hippurim brevioribus et mollioribus comis candidioribusque, perquam utilem ischiadicis et vulneribus ex aceto inpositam propter

^a See XVIII § 259.

^b Perhaps "thin."

^c See Celsus II i, 10, *aquilo sanum corpus spissat*. Cf. p. 40, note. Professor Andrews prefers: "to make the flesh more compact." Dr. Spencer uses "brace" for the Celsus passage.

^d Perhaps *ex aceto* goes only with *vulneribus*. So Littré.

^e In this passage at least a distinction seems to be drawn between *vulnus* and *plaga*, the former being a cut or thrust, and the latter a blow that breaks the flesh. But the distinction is not always strictly observed.

epistaxis, by aizoüm and by root of astragalus. Ischaemon too and achillia check bleeding.

LXXXIII. *Equisaetum*, called hippuris by the Greeks, and found fault with by me when I discussed meadow land ^a—it is in fact “hair of the earth” resembling horse hair—reduces the spleen of runners if as much as the pot will hold is boiled down to one third in new earthenware, and taken in drink for three days in doses of one hemina. There must be abstinence from fatty foods for at least one day previously. The Greeks hold various views about this plant; some under the same name speak of a dark plant with leaves like those of the pine, assuring us that, so wonderful is its nature, its mere touch stanches a patient’s bleeding; some call it hippuris, others ephedron, others anabasis. Their account is that it grows near trees, which it climbs, and hangs down in many dark, rush-like hairs as if from a horse’s tail; that its little branches are jointed, and its leaves few, slender ^b and small; that the seed is round, resembling that of coriander, that its root is ligneous, and that it grows mostly in plantations. Its property is to brace ^c the body. Its juice, kept in the nostrils, checks haemorrhage therefrom, and it also checks looseness of the bowels. Taken in a sweet wine, in doses of three cyathi, it is good for dysentery, promotes passing of urine, and cures cough and orthopnoea, ruptures also and spreading sores. The leaves are taken in drink for complaints of the bowels and bladder; the plant itself reduces intestinal hernia. The Greeks recognise yet another hippuris, which has shorter, softer and paler hairs, making a very useful application in vinegar ^d for sciatica, and also for cuts,^e

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- 135 sistendum sanguinem. et nymphaea trita plagis inponitur. peucedanum cum semine cupressi bibitur, si sanguis per os redditus est fluxitve ab infernis. sideritis tantam vim habet ut quamvis recenti gladiatoris vulneri inligata sanguinem claudat, quod facit et ferulae cinis vel carbo, fungus vero etiam efficacius, qui secundum radicem eius nascitur.
- 136 LXXXIV. per nares autem fluenti et cicutae semen tritum ex aqua additumque efficax habetur, item stephanomelis ex aqua. vettonicae farina e lacte caprino pota sistit ex ubere fluentem, plantagoque contusa. eiusdem sucus vomentibus sanguinem datur. ad erraticum autem radix persollatae cum
- 137 axungia vetere inlita probatur. LXXXV. ruptis convulsisque, ex alto deiectis centaurium maius, gentianae radix trita vel decocta vel sucus, vettonica et hoc amplius a vocis aut lateris contentionibus panaces,¹ scordium, aristolochia pota, agaricum item ² contusis et eversis potum duobus obolis in mulsi cyathis tribus aut, si febris sit, in aqua mulsa, verbascum cuius flos similis auro est, acori radix, aizoum omne, sed maioris sucus efficacissime, item symphyti ius ³ vel radicis decoctum, daucos cruda, erysithales

¹ sucus, vettonica et hoc . . . contentionibus panaces, *Diosc. coll. Mayhoff*: sucus vettonicae, et hoc . . . contentionibus, panaces, *Dellefsen*.

² item *codd.*, *Dellefsen*: idem *Mayhoff*.

³ symphyti ius *Ianus coll. xx 234*: symphyti ipsius *coni. Mayhoff*: symphyticius d: symphitius V: symphyti E: symphyti sucus *Sillig*.

^a By *farina* apparently is meant dried betony ground to powder. It might mean the ground seeds.

as it stanches the flow of blood. Nymphaea also *Lesions,
ruptures,
sprains.* beaten up is applied to wounds from blows, and peucedanum with cypress seed is taken in drink if blood is brought up through the mouth or flows from the lower passages. Sideritis has such a powerful effect that if bandaged to a gladiator's wound, however recent, it stops the bleeding, as does also the ash or cinders of fennel-giant, though more efficacious still is the fungus that grows about its root. LXXXIV. For epistaxis however hemlock seed also beaten up in water and inserted into the nostrils is held to be efficacious, and so is stephanomelis in water. Ground ^a betony taken in goat's milk checks haemorrhage from the breasts, as does crushed plantain. The juice of the latter is given to those who vomit blood. For sporadic bleeding ^b however is recommended an application of persollata root with stale axle-grease.

LXXXV. For ruptures, sprains, and falls from a height remedies are: the greater centaury, gentian root beaten up or boiled down, or its juice, betony, and especially when the lesion is caused by straining the voice or sides, panaces, scordium, aristolochia in drink, agaric also for bruises and falls, the dose being two oboli taken in three cyathi of honey wine or, if there is fever, in hydromel, the verbascum with the golden flower, root of acoron, all the kinds of aizoûm; the most efficacious preparation however being the juice ^c of the greater aizoûm, the broth too of symphytum or a decoction of the root, raw daucos, erysithales—the flower is yellow, the leaves

^b Hardouin saw a reference in *erraticus sanguis* to the effects of erysipelas. It is more likely that some form of purpura is meant.

^c For *sucus* and *ius* see note on XXIV § 146. Pliny may be translating different Greek words (*χυλός*, *χυμός*).

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flore luteo, foliis acanthi e vino, item chamaerops et in sorbitione irio vel plantago omnibus modis, item. . . .

138 LXXXVI. Phthiriasi Sulla dictator consumptus est, nascunturque in sanguine ipso hominis animalia exesura corpus. resistitur¹ uvae taminiae suco aut veratri cum oleo perunctis corporibus. taminia quidem in aceto decocta etiam vestes eo taedio liberat.

139 LXXXVII. Ulcera multorum sunt generum ac multis modis curantur. panacis omnium generum radix ex vino calido inlinitur manantibus. siccatur privatim quam chironiam diximus, cum melle trita tubera aperit ulceribusque quae serpunt deploratis auxilio est, cum aeris flore vino temperata omnibus modis, vel semine vel flore vel radice. eadem cum

140 polenta vetustis volneribus prodest; heraclion quoque siderion, apollinaris, psyllium, tragacantha. scordotis cum melle purgat. farina eius carnis excrescentes per se inspersa consumit. polemonia ulcera quae cacoethe vocant sanat; centaurium maius inspersum vel inlitum, item minoris coma decocta vel trita vetera quoque ulcera purgat et persanat. folliculi clymeni recentibus plagis inponuntur. inlinitur autem gentiana ulceribus quae serpunt radice tusa vel decocta in aqua ad mellis crassitudinem vel suco, volneribus ex ea factum

¹ *Post item lacunam indicat Sillig, quem sequitur Mayhoff: modis, item phthiriasi qua Sulla dictator consumptus est—nascunturque . . . corpus—resistitur Detlefsen.*

^a The text of Mayhoff (which I follow) is here smoother than that of Detlefsen, but leaves one difficulty—the *que* after *nascuntur*. One would rather expect *quo morbo nascuntur* or the like. Perhaps there is another lacuna after *consumptus est*.

those of the acanthus—taken in wine, chamaerops also and irio in soup, or any preparation of plantain, likewise. . . .

LXXXVI. Sulla the dictator perished from *Phthiriasis*, phthiriasis; in the very blood of the patient creatures come to life that will eat up his flesh.^a The disease is combated by rubbing the whole body with juice of the taminian grape, or with hellebore juice and oil. Taminian grapes indeed boiled down in vinegar remove this nuisance even from garments.

LXXXVII. Ulcers are of many kinds, and the *Ulcers*, methods of treatment are many. To running sores is applied in warmed wine the root of any kind of panaces. A specific for drying them is the herb I have called^b chironia; beaten up with honey it opens hard swellings, and affords relief to desperate cases of spreading ulcers; it is diluted with wine and combined with flower of copper, and seed, flower or root may be used indiscriminately. This plant with pearl barley is also good for old wounds, so too is heraclion siderion, apollinaris, psyllium and tragacantha. Scordotis with honey cleanses them; its powder consumes morbid excrescences of flesh, if sprinkled on them by itself. Polemonia heals ulcers that are called malignant; the greater centaury, whether sprinkled or applied as liniment, the tuft^c also of the lesser centaury, boiled down or beaten up, cleanses and thoroughly heals even chronic ulcers. The seed pods of clymenus are applied to fresh wounds. From gentian too is made a liniment for spreading ulcers; the pounded root is boiled down in water to the consistency of honey or the juice may be used; from gentian is made a lycium

^b See XXV § 32.

^c Or, "top."

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- 141 lycium. lysimachia recentibus plagis medetur, plantago omnium generum ulceribus, peculiariter senum et infantium. igni emollita melior et cum cerato crassa ulcerum labra purgat, nomas sistit. tritam suis foliis integere oportet. suppuraciones, collectiones, sinus ulcerum chelidonia quoque siccantur, volnera adeo ut etiam pro spodio utantur, eadem iam
 142 desperatis cum axungia inponitur. dictamnium pota sagittas pellit et alia tela extrahit inlita—bibitur ex aquae cyatho foliorum obolo—proxime pseudo-dictamnium; utraque et suppuraciones discutit. aristolochia quoque putria ulcera exest, sordida purgat cum melle vernesque extrahit, item clavos in ulcere natos et infixā corpori omnia, praecipue sagittas et ossa fracta cum resina, cava vero ulcera explet
 143 per se et cum iride, recentia volnera ex aceto, vetera ulcera verbenaca, quinquefolium cum sale et melle. radices persollatae volneribus ferro inlatis recentibus inponuntur, folia veteribus, cum axungia utrumque, et suo folio operitur, damasonium¹ ut in
 144 struma, folia verbasci ex aceto aut vino. peristereos

¹ veteribus; cum axungia utrimque et suo folio operitur damasonium *Mayhoff*.

^a For lycium see XXIV §§ 124 foll.

^b The difference between *plaga* (πληγή) and *volnus* (τραῦμα) seems here to be *nil*. Littré has *plaie* for both.

^c Mayhoff's emendation here seems to give the sense: "damasonium with axle-grease on both sides is covered over with its own leaves." It is difficult to state with confidence what is, or is not, possible in a passage so amorphous in style as the present, but there can hardly be any objection to *utrumque* in the sense of "either application," especially when the words referred to (*radices, folia*) are of different genders, and each of

for wounds.^a *Lysimachia* is good treatment for fresh wounds,^b and plantain for ulcers of all kinds, especially for those of old men and babies. It is better when softened by fire, and with wax-salve cleanses the thickened lips of ulcers and arrests corrosive sores. The pounded plant when applied should be covered with its own leaves. Suppurations, gatherings and pitted ulcers are also dried up by *chelidonia*, wounds are healed so well that it is even used instead of *spodium*. It is also applied with axle-grease to sores that are already despaired of. Dittany taken in drink forces out arrows; an external application causes to fall out other kinds of weapons—the dose for a draught is an obolus of the leaves in a cyathus of water—and bastard dittany is almost as effective; both too disperse suppurations. *Aristolochia* also eats away festering ulcers, with honey cleanses those that are foul, expels worms, the callosities also that form in ulcers and all things embedded in the flesh, especially with resin arrows and bone splinters; but the pits of ulcers it fills up by itself or with the addition of iris. For fresh wounds it is used in vinegar; for chronic ulcers vervain is used, or cinquefoil with salt and honey. The roots of *persollata* are applied to fresh wounds that have been inflicted by iron, and the leaves to old wounds, axle-grease being added to both^c with a covering of the plant's leaves.^d Other applications are *damasonium*, used as for *scrofula*, and the leaves of *verbascum* in vinegar or wine. *Peris-*

them is an *impositum*. So rather reluctantly I have not adopted this brilliant attempt to restore the true text.

^a Or, "with axle-grease as a base for either, and a pledget of the plant's leaves" (A. C. A.).

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- ad omnia genera vel callosorum putrescentiumque ulcerum facit. manantia nymphaeae heracliae radix sanat, item cyclamini radix vel per se vel ex aceto vel cum melle. eadem et contra steatomata efficax, sicut ad ulcera manantia hysopum, item peucedanum, et ad recentia volnera vis tanta est ut squamam ossibus extrahat. praestant hoc et anagallides cohibentque quas vocant nomas et rheumatismos, utiles et recentibus plagis, sed praecipue senum corpori. cum cerato apostemata et ulcera taetra folia
 145 mandragorae recentia, radix volnera cum melle aut oleo, cicuta cum siligine mixta mero, aizoum herpetas quoque ac nomas ac putrescentia, sicut erigeron verminosa, recentia autem volnera astragali radix et vetera ulcera quae purgat hypocisthis utraque. leontopodii semen tritum in aqua et cum polenta inlitum spicula sagittarum extrahit, item pycnocomi
 146 semen. tithymallus characites suco gangraenas, phagedaenas, putria vel decocto ramorum cum polenta et oleo, orchis radices hoc amplius et cacoethe cum melle, siccae et recentes per se vulnera, onothera efferantia sese ulcera sanat. Scythae vulnera¹ Scythica curant. ad carcinomata argemonia ex
 147 melle efficacissima est. ulceribus praesanatis asphodeli radix decocta ut diximus, trita cum polenta et

¹ vulnera *codd.*: ulcera *Mayhoff* ex *Theophrasto* (*H.P.* IX 13, 2).

^a From *herpetas* to *putrescentia* may be considered a parenthesis: "—herpes too, nomae and festering sores—." In most of this chapter however the sentences are almost formless, and resist efforts to make them conform to the normal.

^b *Mayhoff* may be right in reading *ulcera* from *Theophrastus*. As however the MSS. have *vulnera*, Pliny, rather loose in his renderings of his Greek authorities, probably wrote it.

tereos is good for all kinds of ulcers, even when hard and festering. Running ulcers are cured by root of *nymphaea heraclia*, also by the root of *cyclamen*, by itself, in vinegar, or with honey. This last is also excellent for fatty tumours, as is *hyssop* for running ulcers, and *peucedanum* also, which when used for fresh wounds is so powerful as to exfoliate bones. The two kinds of *anagallis* also have this property, and check fluxes and the sores called *nomae*, being useful for fresh wounds, but especially for those on the flesh of the aged. Abscesses and foul ulcers <may be treated with> fresh leaves of *mandrake* and *wax-salve*, wounds with its root and honey or oil, or with *hemlock* added to wheat and neat wine. For *herpes* also, *nomae* and festering ulcers,^a *aizoium* may be used, as may *erigeron* for verminous sores, for fresh wounds root of *astragalus*, and for chronic ulcers either kind of *hypocisthis*, which cleanses them. The seed of *leontopodium*, beaten up in water and applied with pearl barley, extracts the heads of arrows, as does also the seed of *pyncocomon*. The juice of *tithymallus characites* heals gangrenes, phagedaenic sores and purulent ulcers, as does a decoction of the branches with pearl barley and oil; the roots of *orchis* moreover with honey cure even malignant sores, healing wounds without further addition, and whether dry or freshly gathered. *Onothera* heals ulcers that are becoming virulent. The Scythians treat wounds^b with *scythice*. For *carcinoma argemonia* applied with honey is very efficacious. For ulcers prematurely healed root of *asphodel*, boiled down as I have said,^c beaten up with pearl barley and applied, is good; but *apollinaris* is

^c See XXII § 70.

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inlita, quibuscumque vero apollinaris, astragali radix in pulverem trita umidis ulceribus prodest, item callithrix decocta in aqua, privatim vero his quae calciamento facta sint verbenaca, nec non et lysimachia contrita ac nymphaea arida infriata. polythrix inveteratis isdem utilior est.

- 148 LXXXVIII. Polycnemon cunilae bubulae similis est, semine pulei, surculosa, multis geniculis, corymbo odorato,¹ acri et dulci odore, ferro factis conmanducata inponitur, quinto die solvitur. symphyton ad
- 149 cicatricem celerrime perducit, item sideritis. haec inponitur ex melle. verbasci semine ac foliis ex vino decoctis ac tritis omnia infixae corpori extrahuntur, item mandragorae foliis cum polenta, cyclamini radicibus cum melle. trixaginis folia in oleo contrita his maxime adhibentur ulceribus quae serpunt, et alga in² melle trita, vettonica ad carcinomata et malandrias veteres addito sale.
- 150 LXXXIX. Verrucas tollit argemonia ex aceto vel batrachii radix, quae et ungues scabros aufert, linozostidis utriusque folia vel sucus inlitus. tithymalli omnes genera verrucarum omnia, item pterygia, varos tollunt. cicatrices cum elegantia ad colorem reducit ladanum. artemisiam et elelisphacum alligatas qui habeat viator negatur lassitudinem sentire.

¹ odorato *Gelenius, Detlefsen*: odorata *codd.*: in uncis *Mayhoff*.

² alga in *vulg.* *Detlefsen*: alcima in *Mayhoff*: algam in *VE*.

^a For *malandria* see list of diseases; and XXIV § 44.

good for any kind of sore, and root of astragalus, beaten to powder, for ulcers that are running, and so is callithrix boiled down in water; specific however for sores caused by footwear is vervain, crushed lysimachia also, and dried nymphaea reduced to powder. But when these last have become chronic polythrix proves more useful.

LXXXVIII. Polycnemon is like ox cunila, and its seed resembles that of pennyroyal; it has a wood-like stem with many joints, and its clusters are scented, with a pungent but sweet smell. When chewed it is applied to cuts made by iron, but is taken off on the fifth day. Symphyton very quickly causes a scar to form, as also does sideritis, which is applied with honey. The seed and leaves of verbascum, boiled down in wine and beaten up, bring away everything embedded in the flesh, as do mandrake leaves with pearl barley, or cyclamen roots with honey. Trixago leaves crushed in oil are applied especially to spreading ulcers, as is also sea-weed beaten up in honey; betony, with the addition of salt, is used for carcinoma and chronic pustules ^a on the neck.

LXXXIX. Warts are removed by argemonia in ^{Warts.} vinegar, by root of batrachium, which also brings away scabrous nails, and by an application of the leaves or juice of either kind of linostotis. All kinds of tithymallus remove all kinds of warts, hangnails, and pimples ^b on the face. Ladanum smooths away scars and restores the colour. A traveller who has artemisia and ^c elelisphacus tied on him does not, they say, feel any fatigue.

^b Or, "eruptions."

^c Is *et* here equivalent to "or"? The plural (*alligatas*) seems against this.

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- 151 XC. Muliebribus morbis medetur maxime in universum paeoniae herbae semen nigrum ex aqua mulsa. eadem et in radice vis. menses ciet panacis semen cum absinthio, menses et sudores scordotis potu et inlitu. vettonica drachma in vini cyathis tribus bibitur contra omnia volvarum vitia aut quae a partu fiunt. menses nimios sistit achillia inposita¹ et
 152 decoctum eius insidentibus. mammis inponitur hyoscyami semen ex vino—locis radix in cataplasmate—et² chelidonia. secundas morantes vel partus emortuos radices panacis adpositae extrahunt. ipsum panaces e vino potum volvas purgat adpositumque cum melle. polemonia pota ex vino secundas
 153 pellit, nidore corrigit volvas. centauri minoris sucus potu fotuque menses ciet, item maioris radix in volvae doloribus isdem modis prodest, derasa vero et adposita extrahit partus emortuos. plantago adponitur in lana in dolore volvae, in strangulatu bibitur. sed praecipua dictamno vis est; menses ciet, partus emortuos vel transversos eicit—bibitur ex aqua foliorum obolo—adeo ad haec efficax ut ne in cubiculum quidem praegnantium inferatur. nec potu tantum sed et inlitu et suffitu valet. proxime pseudodic-

¹ inposita E *Detlefsen* : adposita V *Mayhoff*.

² et *Detlefsen* : mammis et *Mayhoff* : et mammis et *codd.*

^a The word *et* here may mean either “and” or “or.”

^b The parenthesis removes the difficulty of this sentence.

^c Littré has : “bonne pour l’hystérie,” but I find it hard to distinguish the phrase from *vulvas conversas corrigit* in XXIV § 22.

^d The Latin *Thesaurus* gives many examples of *adponere* in Pliny used of uterine applications, but it is hard to see how it differs from *subdere* and *subiectus* in § 154. The Greek words corresponding are πρόσθετον and προστίθημι.

XC. For diseases of women a very good general remedy is the black seed, taken in hydromel, of the plant paeonia; its root also has the same property. An emmenagogue is seed of panaces with wormwood, and a sudorific emmenagogue is scordotis, taken internally or ^a applied locally. Betony in doses of one drachma to three cyathi of wine is taken for all uterine affections, and for those that result from child-birth. Excessive menstruation is checked by an application of achillia or ^a a sitz bath in a decoction of it. To the breasts is applied henbane seed in wine—but to the uterus henbane root in a plaster ^b—and also chelidonia. A pessary of panaces roots brings away retarded after-birth or the dead foetus. The uterus is purged by panaces, taken by itself in wine, and by a pessary of it with honey. Polemonia taken in wine forces out the after-birth, and the fumes of it when burnt correct the uterus.^c Juice of the lesser centaury taken in drink or used as a fomentation is an emmenagogue, and the root of the greater centaury, used in the same ways, is good for uterine pains, while if it is scraped and applied as a pessary it brings away a dead foetus. Plantain is applied as a pessary ^d in wool for pain in the uterus; for hysterical suffocation it is taken in drink. But it is dittany that is of the greatest efficacy; it is an emmenagogue, and forces out the foetus when dead or lying transversely—an obolus of the leaves is taken in water—being so efficacious in these respects that it is not even introduced into the bedroom of pregnant women. Not only when taken in drink but also when used as embrocation or a fumigation it has medicinal power. Bastard dittany is very nearly as good, but for an emmenagogue it is boiled down with neat wine, the

Diseases of women.

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tamnum, sed menses ciet cum mero decoctum denarii
154 pondere. plurimis tamen modis aristolochia prodest,
nam et menses et secundas ciet et emortuos partus
extrahit, murra et pipere additis pota vel subdita.
volvas quoque procidentes inhibet fotu vel suffitu vel
155 subiectu, maxime tenuis. strangulatum ab his
mensumque difficultatem agaricum obolis tribus in
vini veteris cyatho potum emendat, peristereos ad-
posita in adipe suillo recenti, antirrhinon cum rosaceo
et melle. item adposita nymphaeae Thessalae radix
dolori medetur, in vino nigro pota profluvia inhibet;
e diverso ciet cyclamini radix pota et adposita, et
156 vesicae insidentium decocto medetur. secundas pota
cissanthemus pellit, volvam sanat. e xiphio radix
superior menses ciet drachma ex aceto pota. peuce-
danum strangulatus volvae nidore ustum recreat,
menses albos¹ praecipue psyllion drachma in cyathis
tribus aquae, semen mandragorae potum volvam
purgat, menses ciet sucus adpositus et emortuos par-
157 tus. nimia rursus profluvia sistit semen cum vivo
sulphure, contra ea ciet batrachium potu vel cibo,
ardens alias, ut diximus, cruda, sed cocta commen-
datur sale et oleo et cumino. daucum et menses et
secundas potu facillime pellit, ladanum suffitu

¹ albos T *Detlefsen, Mayhoff*: albo Vd: alvos E: alvosque
vulg.

^a Again, *et* may mean here "and."

^b See XXV § 173.

dose being one denarius by weight. Very many however are the ways in which aristolochia does good, for it is an emmenagogue, hastens the after-birth, and brings away a dead foetus; myrrh and pepper being added it is taken in drink or used as a pessary. It also checks prolapsus of the uterus, whether used as fomentation, fumigation or pessary, especially the slender aristolochia. Hysterical suffocations and delayed menstruation are relieved by agaric taken in doses of three oboli to a cyathus of old wine, by a pessary of peristereos in fresh lard, and by antirrhinon with rose oil and honey. The root also of Thessalian nymphaea cures uterine pain when used as a pessary; taken in dark-red wine it checks excessive menstruation; on the contrary, root of cyclamen is an emmenagogue if taken in drink or ^a used as a pessary; a sitz bath in the decoction is a remedy for troubles of the bladder. Cissanthemos taken in drink forces out the after-birth and heals the uterus. The upper part of the root of xiphium is an emmenagogue, the dose being a drachma taken in vinegar. Peucedanum calms hysterical suffocations by its smell when burnt; leucorrhoea is purged especially by psyllion in doses of one drachma to three cyathi of water. Seed of mandrake taken in drink purges the uterus; a pessary of its juice is an emmenagogue and brings away a dead foetus. Excessive menstruation again is checked by mandrake seed with live sulphur; on the contrary, menstruation is promoted by batrachium, taken in drink or food, a plant which, though when raw it has, as I have said,^b a burning taste, is made agreeable, when cooked, by salt, oil and cummin. Daucum in drink readily acts as an emmenagogue, and readily brings away the after-birth; fumigation

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corrigit volvas, dolori earum exulceratisque inponi-
 tur. emortua scamonium pellit potum vel adposi-
 158 tum. menses ciet hypericum utrumque adpositum,
 ante alia vero, ut Hippocrati videtur, crethmos e
 vino semine vel radicis cortice,¹ trahit et secundas,
 succurrit et strangulationibus ex aqua pota, item
 radix e geranio peculiariter secundis inflationibusque
 volvarum conveniens. purgat hippuris pota et ad-
 posita volvas, polygonus pota.² menses ciet et
 alcimae radix, folia plantaginis pellunt, item agari-
 159 cum ex aqua mulsa. artemisia volvae medetur
 trita, ex oleo irino aut cum fico aut cum murra ad-
 posita. eiusdem radix pota in tantum purgat ut
 partus enectos extrahat. menses et secundas ciet
 ramorum decoctum insidentibus, item folia pota
 drachma. ad eadem omnia prosunt vel inposita
 160 ventri imo cum farina hordeacia. acoron quoque
 utile est interioribus feminarum morbis et conyza
 utraque et crethmos. et anthyllides³ duae vulvis
 utilissimae torminibusque et secundarum morae in
 vino potae. callithrix fotu locis medetur, albugines
 in capite tollit, capillos inficit oleo trita. geranium in

¹ radicis cortice *vet. Dal., Mayhoff*: radice, cortice *aliquot codd., Detlefsen*: radice corticis T E f.

² pota] *ita dist. Mayhoff ex Dioscoride.*

³ anthyllides *Mayhoff, Hermolaum Barbarum secutus*: canthyllides V, *Detlefsen.*

^a Cf. Dioscorides I 97 § 4 (of ladanum): ὑποθυμῖται δὲ καὶ πρὸς δευτέρων ἐκβολάς. This sentence (not referred to by Mayhoff) has πρὸς δευτέρων ἐκβολάς for Pliny's *corrigit volvas*, a warning to editors who try to bring the two writers into too close agreement.

^b Littré has "guérit l'hystérie." See however the note on § 152 of this book.

^c See Littré's index (Vol. X) *sub voce*.

with ladanum ^a corrects the uterus,^b and the plant is applied locally for pain there and ulceration. Scammony taken in drink or used as a pessary forces out a dead foetus. Either kind of hypericum, used as a pessary, acts as an emmenagogue; pre-eminently so, however, as Hippocrates believes, does crethmos,^c the seed, or the skin of the root, being taken in wine; it also brings away the after-birth, and taken in water is helpful in hysterical suffocations, as is the root of geranium, which is specific for the after-birth and for inflation of the uterus. Hippuris, taken in drink and ^d applied as a pessary, purges the uterus, as does polygonus taken in drink. The root of alcima too is an emmenagogue, leaves of plantain a violent one, as is also agaric in hydromel. Artemisia beaten up is good for the uterus, applied as a pessary in iris oil or with fig or with myrrh.^e Its root taken in drink purges the uterus so violently that it expels a dead foetus. A sitz bath of a decoction of the branches is an emmenagogue, and also hastens the after-birth; so too acts a drachma of the leaves taken in drink. For all the same purposes the leaves are also good when merely applied with barley meal to the base of the abdomen. Acoron too is beneficial for internal diseases of women, and so is either kind of conyza, and also crethmos. The two kinds of anthyllis, taken in wine, are very useful for uterine troubles, for griping pains there, and for delay of the after-birth. Callithrix used for fomentations is healing to the uterus, removes albugo on the head, and beaten up in oil^f stains the

^d Perhaps "or."

^e Note both *ex* and *cum* in a single phrase.

^f Here *oleo* seems equivalent to the usual *ex oleo*.

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- vino albo potum, hypocisthis in rubro profluvium sistunt. hysopum suffocationes laxat. radix verbenacae pota ex aqua ad omnia in partu aut ex partu
- 161 mala praestantissima est. peucedano quidam miscent in vino nigro semen cupressi contritum. nam semen psyllii defervefactum in aqua, cum intepuit, epiphoras omnes uteri lenit. symphyton tritum in vino nigro evocat menses. partus accelerat scordotis pota drachma suci in aquae mulsae cyathis IIII. dictamni folia praeclare dantur ex aqua. constat unius oboli pondere, vel si mortui sint in utero infantes, protinus reddi sine vexatione puerperae. similiter prodest pseudodictamnium, sed tardius, cyclaminos adalligata, cissanthemos pota, item vettonicae farina ex aqua mulsa.
- 162 XCI. Arsenogonon et thelygonon herbae sunt habentes uvas floribus oleae similes, pallidiores¹ tamen, semen album papaveris modo. thelygoni potu feminam concipi narrant; arsenogonon ab ea semine oleae, nec alio distat: huius potu mares generari, si credimus. alii utramque ocimo similem tradunt, arsenogoni autem semen geminum esse testibus simile.
- 163 XCII. Mammarum vitiis aizoum quod digitillum appellavimus unice medetur. erigeron ex passo mammas uberiores facit, soncum cum farre coctum,²

¹ pallidiores d(?) *vulg.* : pallidioris *Detlefsen, Mayhoff.*

² soncum cum farre coctum *ego* : sonci cum farre cocti ius *Mayhoff* : sonchum in farre coctum *Detlefsen et codd.*

hair. Geranion taken in a white wine, and hypocisthis taken in a red, check excessive menstruation. Hyssop relieves hysteria. The root of vervain, taken in water, is a sovereign remedy for all troubles at or after child-birth. Some physicians prescribe peucedanum in dark-red wine mixed with crushed cypress seed. But seed of psyllium, boiled in water and taken while still warm, relieves all fluxes of the uterus. Symphyton beaten up in dark-red wine promotes menstruation. Scordotis taken in drink hastens delivery, the dose being a drachma of the juice in four cyathi of hydromel. Leaves of dittany given in water are excellent for this purpose. It is an established fact that a single obolus of them by weight immediately brings away the foetus, even if it is dead in the uterus, without any distress to the lying-in woman. Good in a similar way is bastard dittany, but slower, also cyclamen used as an amulet, cissanthemos taken in drink, and powdered betony in hydromel.

XCI. Arsenogonon and thelygonon are plants bearing clusters like the flowers of the olive, but paler, and a white seed like that of the poppy. It is said that thelygonon, taken in drink, causes the conception of a female; arsenogonon differs from it in having a seed like that of the olive, but in no other way; taken in drink this plant is said to cause the generation of males, if we care to believe it. Some hold that both plants are like basil, but that the seed of arsenogonon is double, resembling testicles.

XCII. For affections of the breasts the aizoum I have called ^a digitillum is an outstanding remedy. Erigeron in raisin wine makes the breasts richer in milk, as does soncum boiled with emmer wheat; the

quae vero mastos vocatur inlita. pilos mammarum partu nascentes,¹ testas in facie aliaque cutis vitia emendat gentiana, nymphaea heraclia inlita, cyclamini radix maculas omnes. caccaliae grana mixta cerae liquidae extendunt cutem in facie erugantque, vitia omnia acori radix emendat.

- 164 XCIII. Capillum lycium suco² flavum facit, denigrat hypericum quod et corisum vocatur, item ophrys herba denticulato oleri similis, foliis duobus. nigritiam dat et polemonia in oleo decocta. psilotrum nos quidem in muliebribus medicamentis tractamus, verum iam et viris est in usu. efficacissimum autem habetur archezostis, item tithymalli, suco vel in sole cum oleo inlito crebro vel evolsis pilis. quadripedum scabiem sanat hysopum ex oleo, suum anginas peculiariter sideritis. verum et reliqua genera herbarum reddamus.

¹ nascentes *vet. Dal., Mayhoff* : nascentium *codd.*

² lycium suco *e Dioscoride* [(λύκιον) ξανθίζει δὲ καὶ τρίχας, I 100 § 3] *Mayhoff* : lysimace *VE* : lysimachia *vulg.*

plant called mastos, however, is applied as liniment. The hairy affection appearing on the breasts at child-birth, brick-red spots on the face, and other skin troubles, are removed by gentian, or by an application of nymphaea heraclia, and all kinds of spots by root of cyclamen. The grains of caccalia, mixed with melted wax, smooth the face, taking away the wrinkles, and all facial troubles are removed by root of acoron.

XCIII. Lycium^a juice dyes the hair flaxen; *Dyes and depilatories.* hypericum, also called corissum, dyes it black, as does ophrys, a plant like indented cabbage, but with only two leaves. Polemonia, too, boiled down in oil, imparts a black colour. Depilatories I myself indeed regard as a woman's cosmetic, but now today men also use them. But very efficacious is held to be archezostis, as also the tithymalli, the juice being applied frequently with oil either in the sun or when the hairs have been pulled out. Hyssop in oil heals the itch in quadrupeds, and sideritis is specific for the quinsy in swine. But I must go on to describe the remaining kinds of plants.

^a See XXIV §§ 124 ff.

BOOK XXVII

LIBER XXVII

1 I. CRESCIT profecto apud me certe tractatu ipso
admiratio antiquitatis, quantoque maior copia her-
barum dicenda restat, tanto magis adorare priscorum
in inveniendo curam, in tradendo benignitatem subit.
nec dubie superata hoc modo posset videri etiam
rerum naturae ipsius munificentia, si humani operis
2 esset inventio. nunc vero deorum fuisse eam apparet
aut certe divinam, etiam cum homo inveniret, ean-
demque omnium parentem et genuisse haec et
ostendisse, nullo vitae miraculo maiore si verum
fateri volumus. Scythicam herbam a Maeotis
paludibus, et euphorbeam e monte Atlante utraque
Herculis columnas ex ipso rerum naturae defectu,
parte alia britannicam ex oceani insulis extra terras
positis, itemque aethiopidem ab exusto sideribus
3 axe, alias praeterea aliunde ultro citroque humanae
saluti in toto orbe portari, immensa Romanae pacis
maiestate non homines modo diversis inter se terris
gentibusque verum etiam montes et excedentia in

^a *Scythicam herbam . . . portari* seems to be exclamatory.

BOOK XXVII

I. THE mere treatment of this subject undoubtedly *The bounty of Nature.* increases the admiration that I at least feel for the men of old; the greater the number of plants waiting to be described, the more one is led to revere the careful research of the ancients and their kindness in passing on the results. Without a doubt even the bounteousness of Nature herself might seem to have been surpassed by them in this way if the discoveries had been the result of human endeavour. But as it is, it is clear that this bounteousness has been the work of the gods, or at least due to their inspiration, even when the actual discoverer was a man, and that the same Mother of all things both produced the herbs and made them known to us. This is the greatest miracle of life, if we care to admit the truth. To think that^a the Scythian plant, for example, is brought from the marshes of Maeotis, euphorbea from Mount Atlas and from beyond the pillars of Hercules, where the works of Nature actually begin to fail; on another side britannica, from islands in the ocean lying beyond the mainland, aethiopis too from the clime scorched by the constellations of heaven, and other plants moreover passing hither and thither from all quarters throughout the whole world for the welfare of mankind, all owing to the boundless grandeur of the Roman Peace, which displays in turn not men only with their different lands and tribes, but also moun-

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nubes iuga partusque eorum et herbas quoque invicem ostentante. aeternum quaeso. deorum sit munus istud! adeo Romanos velut alteram lucem dedisse rebus humanis videntur.

- 4 II. Sed antiquorum curam diligentiamque quis possit satis venerari? constat omnium venenorum ocissimum esse aconitum et tactis quoque genitalibus feminini sexus animalium eodem die inferre mortem. hoc fuit venenum quo interemptas dormientes a Calpurnio Bestia uxores M. Caelius¹ accusator obiecit. hinc illa atrox peroratio eius in digitum. ortum fabulae narravere e spumis Cerberi canis extrahente ab inferis Hercule ideoque apud Heracleam Ponticam, ubi monstratur is ad inferos aditus, gigni. hoc quoque tamen in usus humanae salutis vertere scorpionum ictibus adversari experiendo datum in vino calido. ea est natura ut hominem occidat nisi invenerit quod in homine perimat. cum eo solo conluctatur, †veluti² praesentius³ invento.† sola haec pugna est, cum venenum in visceribus reperit,⁴

¹ Caelius *Ruhnken ad Vell. Pat. II 68, Mayhoff*: Caecilius *codd., Detlefsen*.

² veluti] velum V¹.

³ praesentius V² *vulg., Detlefsen*: parte intus *multi codd.*: pari intus *Hermolaus Barbarus*.

⁴ sola . . . reperit in *uncis I. Müller, Mayhoff*.

^a Detlefsen and Mayhoff agree in reading *eum eo solo conluctatur, veluti praesentius invento*. Mayhoff adds "*invento = quam inventum*." After J. Müller, Mayhoff brackets *sola . . . reperit*, which certainly looks like a marginal explanation of the preceding sentence added to the text by a subsequent scribe. *Sola haec pugna est* corresponds to *cum eo solo conluctatur*, and *reperit* to *invento*. We should therefore expect in the first sentence something to correspond to *venenum* and to *in visceribus*. It might be *veneno* for the first and *intus* for the second. The whole would be *veneno praesenti intus invento*, "the quick-acting poison found inside." In XVI 51

tains, and peaks soaring into the clouds, their offspring and also their plants. May this gift of the gods last, I pray, for ever! So truly do they seem to have given to the human race the Romans as it were a second Sun.

II. But who could revere enough the diligent *Aconite.* research of the ancients? It is established that of all poisons the quickest to act is aconite, and that death occurs on the same day if the genitals of a female creature are but touched by it. This was the poison that Marcus Caelius accused Calpurnius Bestia of using to kill his wives in their sleep. Hence the damning peroration of the prosecutor's speech accusing the defendant's finger. Fable has it that aconite sprang out of the foam of the dog Cerberus when Hercules dragged him from the underworld, and that this is why it grows around Heraclea in Pontus, where is pointed out the entrance to the underworld used by Hercules. Yet even aconite the ancients have turned to the benefit of human health, by finding out by experience that administered in warm wine it neutralizes the stings of scorpions. It is its nature to kill a human being unless in that being it finds something else to destroy. Against this alone it struggles, †regarding it as more pressing than the find.† [This is the only fight, when the aconite discovers a poison in the viscera.]^a What a marvel!

occurs *praesentis veneni*. The reading of Hermolaus Barbarus is brilliant, but if it is the original how did *praesentius* arise? I leave the text and translation within daggers, as I consider my own suggestion too conjectural. The sense, however, of the text of Hermolaus Barbarus is excellent: "as though it had found inside a foe to match it." Professor Andrews thinks that the text is sound, with the sense: "as though it had found something more urgent, and so fights solely with this."

PLINY : NATURAL HISTORY

mirumque, exitialia per se ambo cum sint, duo venena
6 in homine conmoriantur ut homo supersit. immo
vero etiam ferarum remedia antiqui prodiderunt
demonstrando quomodo venenata quoque ipsa sana-
rentur. torpescunt scorpiones aconiti tactu stupent-
que pallentes et vinci se confitentur. auxiliatur his
helleborum album tactu resolvente, ceditque aconit-
um duobus malis, suo et omnium. quae si quis
ulla forte ab homine excogitari potuisse credit,
7 ingratitude deorum munera intellegit. tangunt carnes
aconito necantque gustatu earum pantheras, nisi
hoc fieret, repleturas illos situs. ob id quidam
pardalianches appellavere. at illas statim liberari
morte excrementorum hominis gustu demonstratum.
quod certe casu repertum quis dubitet et quotiens
fiat etiam nunc ut novum nasci, quoniam feris ratio et
8 usus inter se tradi non possit? hic ergo casus,
hic est ille qui plurima in vita invenit deus, hoc habet
nomen per quem intellegitur eadem et parens rerum
omnium et magistra,¹ utraque coniectura pari, sive
ista cotidie feras invenire sive semper scire iudicemus.
pudendumque rursus omnia animalia quae sint salu-
9 taria ipsis nosse praeter hominem. sed maiores

¹ hoc habet . . . magistra in parenthesis Mayhoff.

^a Perhaps "poisoned."

^b After *carnes* Mayhoff would supply *Hyrcani*, and the name of a people seems omitted (because of *illos situs* at the end of the sentence).

Although by themselves both are deadly, yet the two poisons in a human being perish together so that the human survives. Moreover even remedies used by wild beasts have been handed down by the ancients, who have shown how venomous ^a creatures also by themselves obtain healing. Scorpions, touched by aconite, become numbed, and are pale and stupefied, acknowledging their defeat. They find a help in white hellebore, its touch dispelling the torpor; the aconite yields to two evil foes, one peculiar to itself and one common to all creatures. If anyone believes that these discoveries could, by any chance, have been made by a man, he shows himself ungrateful for the gods' gifts. They touch ^b flesh with aconite, and kill panthers by a mere taste of it, otherwise panthers would overrun the regions where they are found. For this reason some have called aconite pardalianches, that is panther-strangler. But it has been proved that panthers are at once saved from this death by tasting human excrement; surely nobody doubts that this remedy has been found by Chance, and that on every occasion it is even today a new find, since wild animals have neither reason nor experience for results to be passed from one to another. This Chance therefore, this is that great deity who has made most of the discoveries that enrich our life, this is the name of him by whom is meant she who is at once the Mother and the Mistress of all creation. Either guess is equally likely, whether we judge that wild animals make these discoveries every day or that they possess a never-failing instinct. Again it is shameful that all animals except man know what is health-giving for themselves. Our ancestors however advertised the

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- oculorum quoque medicamentis aconitum misceri saluberrime promulgavere aperta professione malum quidem nullum¹ esse sine aliquo bono. fas ergo nobis erit qui nulla diximus venena monstrare quale sit aconitum, vel deprehendendi gratia. folia habet cyclamini aut cucumeris non plura quattuor, ab radice, leniter hirsuta, radicem modicam cammaro similem marino, quare quidam cammaron appellavere, alii thelyphonon, ex qua diximus causa. cauda² radiceis incurvatur paulum scorpionum modo, quare et scorpion aliqui vocavere. nec defuere qui myoctonon appellare mallent, quoniam procul et e longinquo
 10 odore mures necat. nascitur in nudis cautibus quas aconas nominant, et ideo aconitum aliqui dixere, nullo iuxta ne pulvere quidem nutriente. hanc aliqui rationem nominis adtulere, alii, quoniam vis eadem esset in morte quae cotibus in ferri acie deterenda, statimque admota velocitas sentiretur.
 11 III. Aethiopis folia habet phlomo similia, magna ac multa et hirsuta ab radice, caulem quadriangulum,

¹ malum quidem nullum d(?) *vulg.*, *Detlefsen* : ne malum quidem ullum *Mayhoff*.

² cauda V, *Mayhoff* : arida E : cauda arida *Detlefsen* : radix sine cauda radiceis d, *vulg.*, *fortasse recte*.

^a There is perhaps little to choose between the two readings. *Mayhoff's* *ne* is quite as likely as the *vulgate* text.

^b I.e. "mouse-killer."

^c I.e. *κόνις* dust and *a* privative.

^d A whetstone is in Greek *ἀκόννη*.

^e It is interesting to compare Pliny's account of aconite with Dioscorides IV 76 (Wellmann). In the latter is given the effect of aconite on scorpions with its antidote in the touch of white hellebore. The preceding sentence is : *ρίζα ὁμοία σκορπίου οὐρά, στίλβουσα ἀλαβαστροειδῶς*. For this last Pliny has only :

view that aconite is also a very health-giving ingredient of preparations for the eyes, openly declaring their belief that no evil^a at all is without some admixture of good. It will therefore be right for me, who have described no poisons, to point out the nature of aconite, if only for the purpose of detecting it. It has leaves like those of cyclamen or of cucumber, not more than four, rising from the root and slightly hairy, and a root of moderate size, like a crayfish (*cammarus*), whence some have called it *cammaron*, and others *thelyphonon*, for the reason I have given already. The end of the root curves up a little like a scorpion's tail, whence some have called it also scorpion. There have been some who would prefer to call it *myoctonos*,^b since at a distance, even a long distance, its smell kills rats and mice. The plant grows on bare crags which are called *aconae*, and for that reason some have given it the name of aconite, there being nothing near, not even dust,^c to give it nourishment. This then is the reason for its name given by some; others have thought it was so named because it had the same power to cause rapid death as whetstones^d had to give an edge to an iron blade; no sooner was the stone applied than its rapid action was noticeable.^e

III. Aethiopsis has leaves like those of phlomos, *Aethiopsis*, large, numerous and hairy, growing from the root. The stem is quadrangular, rough, like that of arction

cauda radice incurvatur paulum scorpionum modo. The phrase *cauda radice* is peculiar, and suggests that Pliny had a Greek text before him in which *πίζα* and *ὄψα* (or some case of it) were side by side. There is nothing in Dioscorides corresponding to *arida*, which appears to have arisen from its partial likeness to *cauda*.

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- scabrum, similem arctio, multis concavum alis, semen ervo simile, candidum, geminum, radices numerosas, longas, plenas, molles, glutinosas gustu. siccae nigrescunt indurescuntque ut cornua videri
 12 possint. praeter Aethiopiam nascuntur et in Ida monte Troadis et in Messenia. colliguntur autumnno, siccantur in sole aliquot diebus ne situm sentiant. medentur volvis potae in vino albo, ischiadicis, pleuriticis, faucibus scabris decoctae potui dantur, sed quae ex Aethiopia venit eximie atque illico prodest.
- 13 IV. Ageraton ferulacea est, duorum palmorum altitudine, origano similis, flore bullis aureis. huius ustae nidor urinam ciet volvasque purgat, tanto magis insidentibus. causa nominis [non haec, sed]¹ quoniam diutissime non marcescit.
- 14 V. Aloe scillae similitudinem habet, maior et pinguioribus foliis, ex obliquo striata—caulis eius tener est, rubens medius, non dissimilis antherici, radice una ceu palo in terram demissa²—gravis odore, gustu amara. laudatissima ex India adfertur, sed nascitur et in Asia, non tamen ea utuntur nisi

¹ non haec sed *in uncis ponunt Pintianus, Sillig, Mayhoff.*

² *Hic ipsa add. Mayhoff.*

^a "With numerous axillary concavities" (Bostock and Riley), "offrant de nombreux goussets" (Littré). Dioscorides has: *καυλὸν τετράγωνον . . . μασχάλας ἀνιέντα πολλάς* (IV. § 104).

^b *ρίζας . . . πολλάς, μακράς, παχείας, γενομένῳ κολλώδεις* (Dioscorides).

^c Strictly the subject of *nascuntur* is *radices*.

^d *Scabris* is rather difficult. Bostock and Riley translate "eruptions of the throat," and Littré has (vaguely) "les maux de gorge." Perhaps it is a loose term, like our "sore throat."

and hollowed by many axils.^a The seed is like that of vetch, white and geminate; the roots are numerous, long, fleshy, soft, and gluey to the taste.^b When dry these become black and hard, so that they might be taken for horns. This plant^c grows not only in Aethiopia, but also on Mount Ida in the Troad and in Messenia. The roots are gathered in autumn and dried in the sun for some days to prevent their growing mouldy. Taken in white wine they are a remedy for uterine troubles, and a decoction is given by the mouth for sciatica, pleurisy and rough^d throats. The Aethiopian kind, however, gives the greatest, and immediate, relief.

IV. *Ageraton* resembles fennel-giant, is two spans *Ageraton*. high and like origanum, and the flowers are golden knobs. The fumes when the plant is burnt are diuretic and purge the uterus: used in a sitz bath the plant does this more effectively. The reason for the name is [not this but]^e because it lasts for a long time without fading.^f

V. The aloe bears a resemblance to the squill, *Aloe*. but it is larger, and has more fleshy leaves, and with slanting streaks. Its stem is tender, red in the centre, and not unlike anthericus; the root is single, as it were a stake sunk into the ground.^g It has an oppressive smell, and a bitter taste. The most valued kind is imported from India, but it also grows in the province of Asia. This kind is used only for

^a Bracketed by some, but may be an allusion to a supposed derivation from *ἀγειν*, or from *agere* "to drive" (i.e. "purge").

^f In Greek the plant is *ἀγήπαρον*, "not growing old."

^g Mayhoff puts a full stop at *striata* and a semicolon at *demissa*, adding *ipsa*. Dioscorides (III 22) has *ὄλη*. The parenthesis, however, is after the manner of Pliny.

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- ad volnera, mirifice enim conglutinat recentibus
foliis¹ vel suco. ob id in turbinibus cadorum eam
15 serunt ut aizoum maius. quidam et caulem ante
maturitatem seminis incidunt suci gratia, aliqui et
folia. invenitur et per se lacrima adhaerens. ergo
pavimentandum ubi sata sit censeant, ut lacrima non
absorbeatur. fuere qui traderent in Iudaea super
Hierosolymam metallicam eius naturam, sed nulla
magis improba est, neque alia nigrior est aut umidior.
16 erit ergo optima pinguis ac nitida, rufi coloris,
friabilis et iocineris modo coacta, facile liquescens,
inprobanda nigra et dura, harenosa quaeque gustu
intellegitur cummi adulterata et acacia. natura eius
spissare, densare et leniter calfacere; usus multi,²
sed principalis alvum solvere, cum paene sola medica-
mentoribus quae id praestant confirmet etiam sto-
17 machum, adeo non infestet ulla vi contraria. bibitur
drachma, ad stomachi vero dissolutionem in duobus
cyathis aquae tepidae vel frigidae coclearis mensura
bis terve in die ex intervallis, ut res exigit, purga-
tionis autem causa plurimum tribus drachmis,
efficacior, si pota ea sumatur cibus. capillum
fluentem continet cum vino austero capite contra

¹ recentibus foliis] *in codd. post volnera. Transponenda esse coni. Mayhoff, qui in textu conglutinant suco scribit.*

² multi Mayhoff: multis V E Detlefsen: multis et d T.

^a Mayhoff suggests, but does not adopt, the transposition, which certainly eases the construction. See critical note ¹.

^b Mayhoff suggests *ne* for *non*. Prof. Andrews takes this clause as consecutive.

^c I.e. the borders of the Dead Sea. Pliny refers to asphalt or bitumen. At this point Pliny turns from the plant to the preparations from it.

wounds, the freshly gathered leaves,^a or the juice, having a wonderful power of uniting. For this reason it is planted in conical jars, as is the greater aizoüm. Some, before the seed ripens, make an incision in the stem to get the juice; some do so in the leaves as well. Drops too form spontaneously on it, and adhere. Some therefore recommend that the ground where the aloe has been planted should be beaten down hard, so as to prevent^b absorption. Some have reported that in Judaea beyond^c Jerusalem can be found mineral aloes. This however is the most inferior kind of all, and no other is darker or more moist. So the best aloes will be fatty and shiny, of a ruddy^d colour, friable, compact like liver,^e and easily melted. The kind to be rejected is dark and hard, gritty, and adulterated with gum and acacia, the adulteration being easily detected by the taste. The nature of an aloe is bracing, astringent,^f and gently warming. There are many uses for it, but the chief is to relax the bowels, for it is almost the only laxative that is also a stomach tonic, no ill effects whatever resulting from its use. A drachma is taken in drink, but for fluxes of the stomach a spoonful in two cyathi of warm or cold water is taken twice or three times a day at intervals, as circumstances require; but for purging the bowels the maximum dose is three drachmae, which is more effective if food is taken after the draught. With a dry wine it prevents the hair from falling out, the

^a Dioscorides III 22, has ὑπόξανθον.

^e Dioscorides has εὐθρυπτον καὶ ἡπατίζουσαν.

^f *Spissare* and *densare* are difficult words. Dioscorides has : δύναμιν δ' ἔχει στυπτικήν, ξηραντικήν, πυκνωτικήν τῶν σωμάτων.

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- pilum peruncto. dolorem capitis sedat temporibus et fronti inposita ex aceto et rosaceo dilutiorque in-
- 18 fusa. oculorum vitia omnia sanari ea convenit, privatim prurigines et scabiem genarum, item insignita ac livida inlita cum melle, maxime Pontico, tonsillas, gingivas et omnia oris ulcera, sanguinis excreationes, si modicae sint, drachma ex aqua, si minus, ex aceto pota. vulnerum quoque sanguinem et undecumque
- 19 fluentem sistit per se vel ex aceto. alias etiam est volneribus utilissima ad cicatricem perducens. eadem inspergitur exulceratis genitalibus virorum, condylomatis rimisque sedis, alias ex vino, alias ex passo, alias sicca per se, ut exigat mitiganda curatio aut coercenda. haemorrhoidum quoque abundan-
- 20 tiam leniter sistit. dysinteriae infunditur et, si difficilius concoquantur cibi, bibitur a cena modico intervallo, et in regio morbo tribus obolis ex aqua, devorantur et pilulae cum mellis decocto aut resina terebinthina ad purganda interiora. digitorum pterygia tollit, oculorum medicamentis lavatur ut quod sit harenosissimum subsidat, aut torretur in testa pinnaque subinde versatur ut possit aequaliter torreri.
- 21 VI. Alcea folia habet similia verbenacae quae aristereon cognominatur, caules tres aut quattuor foliorum plenos, florem rosae, radices albas cum plurimum sex, cubitales, obliquas. nascitur in
- 400

head being thoroughly rubbed in the contrary way to the hair. It relieves headache if it is applied in vinegar and rose oil to the temples and forehead, or a more dilute solution may be poured over them. All eye troubles, it is agreed, are cured by the aloe, but it is specific for itch and sealiness of the eyelids; ^a it is also good, applied with honey, especially with Pontic honey, for marks and bruises; for diseased tonsils or gums, for all sores in the mouth, and for spitting of blood, the dose is a drachma, taken in water if the spitting is not excessive, and in vinegar if it is. Haemorrhage due to wounds also, or to any other cause, it arrests if used by itself or in vinegar. In other ways too it is very useful for wounds, as it promotes cicatrization. It is also sprinkled on ulcerated male genitals, condylomata and chaps of the anus, sometimes in wine, in raisin wine, or else dry by itself, according as the treatment may need mild measures or coercive. It also gently arrests excessive bleeding from haemorrhoids. For dysentery it is injected, and for indigestion it is taken in drink shortly after the evening meal. For jaundice the dose is three oboli in water; for internal purgings pills also are swallowed made up with boiled honey or turpentine resin. It removes hangnails; for eye preparations it is washed, to let the most gritty parts settle, or else it is roasted in an earthen vessel and occasionally stirred with a feather so that the roasting may be even throughout.

VI. *Aleea* has leaves like those of the vervain *Alcea*, called aristereon, three or four stems covered with leaves, flowers like a rose, and white roots, six at most, a cubit long, and slanting. It grows in a soil

^a Professor Andrews thinks "cheeks."

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pingui solo nec sicco. usus radicis ex vino vel aqua dysintericis, alvo citae, ruptis, convulsis.

- 22 VII. Alypon cauliculus est molli capite, non dissimile betae, acre gustatu ac lentum mordensque vehementer et accendens. alvum solvit in aqua mulsa addito sale modico. minima potio duarum drachmarum, media quattuor, maxima sex, [†]ea purgationi quibus[†] ¹datur e gallinaceo iure.²
- 23 VIII. Alsine, quam quidam myosoton appellant, nascitur in lucis, unde et alsine dicta est. incipit a media hieme, arescit aestate media. cum prorepit, musculorum aures imitatur foliis. sed aliam docebimus esse quae iustius myosotis vocetur. haec eadem erat quae helxine, nisi minor minusque hirsuta esset. nascitur in hortis et maxime in parietibus. cum teritur, odorem cucumeris reddit. usus
- 24 eius ad collectiones inflammationesque et in eadem³ omnia in quae⁴ helxine,⁵ sed infirmius. epiphoris

¹ ea purgationi quibus *Jo. Müller*: eximia purgatione quibus *Mayhoff*: ea purgatio quibusdam *vet. Dal., Littré. Fortasse* purgationi a quibusdam.

² iure *Hermolaus Barbarus, edd.*: fere d E r: ffere R: fferre V: *malit* datur in iure e gallinaceo vetere *Mayhoff*.

³ et in eadem (ni E) V R E: emendat d T: item eadem *Mayhoff*.

⁴ in quae ego: quae *codd. et edd.*

⁵ helxine *Hermolaus Barbarus*: helxines *Mayhoff*: *varia codd.*

^a It is difficult to suggest a restoration of this sentence, but the general sense, I think, is that when used as a purge and not as a laxative alypon should be administered in chicken broth. Dioscorides tells us that the bowels might be injured by the use of alypon, and in § 95 we learn that chicken broth was used to mitigate such harmful effects. The various readings show that the text is corrupt. It is very strange that *iure*, the practically

which is rich but not dry. The root is used in wine or water for dysentery, diarrhoea, ruptures and sprains.

VII. Alypon is a small sprout with a soft head, and *Alypon.* not unlike beet, sharp to the taste and viscous, very pungent and burning. In hydromel with a little salt added it loosens the bowels. The smallest dose is two drachmae, a moderate one four, the maximum being six. When given as a purge it is taken in chicken broth.^a

VIII. Alsine, which some call myosoton, is found *Alsine.* in groves; hence its name.^b It begins to grow just after midwinter, and withers at midsummer. When it puts forth its leaves, they are like the ears of little mice. However, I shall describe another plant,^c to which more properly would be given the name myosotis. Alsine would be just the same as helxine, were it not that it is smaller and less hairy. It grows in gardens and especially on walls.^d When being bruised it smells like cucumber. It is used for gatherings and inflammations, and for all purposes for which helxine is employed, but with less efficacy.

certain emendation of Hermolaus Barbarus, should appear in no extant MS.; the variants give some support to Mayhoff's suggestion *vetere*. It may be that *ea* arose from a misplaced *a*, that Io. Müller's *purgationi* is right, and that *quibusdam* (*datur* follows) should replace *quibus*. I print between daggers, as no emendation is very convincing. Dioscorides' account of *ἄλυπον* is different from this chapter, and affords little or no help.

^b From the Greek *ἄλσος* (grove).

^c See § 105.

^d Pliny says in the first sentence that it grows in groves. He has expressed himself carelessly, but the first *habitat* is displaced in order to explain the name alsine, but the plant commonly grows in all the places named.

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- peculiariter inponitur, item verendis ulceribusque cum farina hordeacia. sucus eius auribus infunditur.
- 25 IX. Androsaces herba est alba, amara, sine foliis, folliculos in cirris habens et in his semen. nascitur in maritimis Syriae maxime. datur hydropicis drachmis duabus tusa aut decocta in aqua vel aceto vel vino. vehementer enim urinas ciet. datur et podagricis inliniturque. idem effectus et seminis.
- 26 X. Androsaemon sive, ut alii appellavere, ascyron non absimile est hyperico, de qua diximus, cauliculis maioribus densioribusque et magis rubentibus. folia alba rutae figura, semen papaveris nigri. comae tritae sanguineo suco manant. odor eis resinosus. gignitur in vineis, fere medio autumno effoditur
- 27 suspenditurque. usus ad purgandam alvum tusae cum semine potaeque matutino vel a cena duabus drachmis in aqua mulsa vel vino vel aqua pura, potionis totius sextario. trahit bilem, prodest ischiadi maxime, sed postera die capparis radicem resinae permixtam devorare oportet drachmae pondere, iterumque quadridui intervallo eadem facere, a purgatione autem ipsa robustiores vinum bibere, infirmiores aquam. inponitur et podagris et ambustis et vulneribus cohibens sanguinem.
- 28 XI. Ambrosia vagi nominis et circa alias herbas fluctuati unam habet certam, densam, ramosam,

^a See XXVI § 85.

^b It seems uncertain whether this sentence applies to both the preceding remarks or only to the latter. Littré, followed by Bostock and Riley, make the *sed* clause apply only to sciatica. On the other hand, a *purgatione ipsa* would, I think, suggest that the clause *trahit bilem* is also included. Dioscorides is of no help here.

^c E.g. in XXV 160 it = aizoûm maius, and in XXV 74 it = artemisia.

Especially is it applied to eye fluxes, and with barley meal to sore genitals and ulcers. Its juice is poured into the ears.

IX. *Androsaces* is a whitish plant, bitter, leafless, *Androsaces.* with seed pods in hairy tufts. It grows especially along the sea coast of Syria. For dropsy are prescribed two-drachma doses of the plant pounded or boiled down in water, vinegar, or wine, for it is a powerful diuretic. It is also prescribed for dropsy and applied locally. The seed too has the same properties.

X. *Androsæmon*, or, as others have called it, *Androsæmon.* *aseyron*, is not unlike *hypericum*, about which I have already spoken,^a but the stalks are larger, closer together, and redder. Its leaves are pale and shaped like those of *rue*; the seed resembles that of the dark poppy. The stalk tops when crushed give out a juice of the colour of blood. Their smell is resinous. It grows in vineyards; about the middle of autumn it is dug and hung up. When used as a purge it is pounded with the seed and taken early in the morning or after dinner, the dose being two drachmae in hydromel, wine, or plain water, and the whole draught a sextarius. It brings away bile, and is excellent for *sciatica*, but ^b on the following day should be swallowed a drachma of caper root well mixed with resin. This dose should be repeated after an interval of four days. After the actual purging wine should be drunk by the stronger patients and water by the weaker. The plant is applied also to gouty limbs, to burns, and, as it stanches blood, to wounds.

XI. *Ambrosia*, an indeterminate name loosely *Ambrosia.* given to other^c plants, is the primary name of one in particular, which is branchy and close set,

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tenuem, trium fere palmorum, tertia parte radice brevior, foliis rutae circa imum caulem. in ramulis semen est uvis dependentibus, odore vinoso qua de causa botrys a quibusdam vocatur, ab aliis artemisia. coronantur illa Cappadoces. usus eius ad ea quae discuti opus sit.

29 XII. Anonim quidam ononida malunt vocare ramosam, similem feno Graeco, nisi fruticosior hirsutiorque esset, odore iucunda, post ver¹ spinosa. estur etiam muria condita, recens vero margines ulcerum erodit. radix decoquitur in posca dolori dentium. eadem cum melle pota calculos pellit. comitialibus datur in oxymelite decocta ad dimidias.

30 XIII. Anagyros, quam aliqui acopon vocant, fruticosa est, gravis odore, flore oleris, semen in corniculis non brevibus gignit, simile renibus, quod durescit per menses. folia collectionibus inponuntur difficulterque parientibus adalligantur ita ut a partu statim auferantur. quod si emortuus haereat et secundae mensesque morentur, drachma bibuntur in passo folia. sic et suspiriosis dantur, et in vino vetere ad phalangiorum morsus. radix discutiendis concoquendisque adhibetur, semen commanducatum vomitiones facit.

31 XIV. Anonymos non inveniendō nomen invenit. adfertur e Scythia, celebrata Hicesio non parvae

¹ ver R d *vulg.*, Mayhoff: vero V *Dettefsen*.

^a Dioscorides (III 114) has no such epithet for the plant as a whole, but says that the root is λεπτή, *δισπίθαμος*. The similarity of *δισπίθαμος* and *τρισπίθαμος* probably caused the error.

^b The word in Greek means "grape-cluster."

slender,^a about three spans high, with a root one span less, and with leaves around the bottom of the stem resembling those of rue. The seed is on the twigs, hanging down in clusters, and has a vinous smell; and so the plant is called botrys^b by some, although others call it artemisia. The Cappadocians use it for chaplets. In medicine it is used as a discutient.

XII. Anonis, which some prefer to call ononis, *Anonis*, is branchy, and like fenugreek, except that it is more bushy and more hairy. It has an agreeable smell, and becomes prickly after spring. Preserved in brine it is also used as food, while the fresh plant cauterizes the edges of ulcers. The root is boiled down in vinegar and water for tooth-ache, and taken in drink with honey it also expels stone from the bladder. For epilepsy it is given in oxymel boiled down to one half.

XIII. Anagyros, which some call acopon, is bushy, *Anagyros*, with a strong smell and a flower like that of cabbage. The seed grows in little horn-like pods of some length; it is kidney-shaped and becomes hard during the harvests. The leaves are placed on gatherings, and tied as an amulet on women in difficult labour, care being taken to remove them immediately after delivery. But if a dead foetus does not come away, or if the after-birth or menstruation is retarded, the leaves are taken in raisin-wine, a dose being a drachma. Similar doses are given for asthma, and in old wine the leaves are given for the bites of poisonous spiders. The root is employed to disperse or mature boils; the seed chewed acts as an emetic.

XIV. Anonymus has found a name by not finding one. *Anonymus*. It is imported from Scythia. Hicesius, a

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auctoritatis medico, item Aristogitoni, in vulneribus praeclara, ex aqua tusa inposita, pota vero mammis praecordiisve percussis, item sanguinem excreantibus. putavere et bibendam vulneratis. fabulosa arbitror quae adiciuntur, recente ea si uratur ferrum aut aes feruminari.

32 XV. Aparinen aliqui omphalocarpon, alii philanthropon vocant, ramosam, hirsutam, quinis senisve in orbem circa ramos foliis per intervalla. semen rotundum, durum, concavum, subdulce. nascitur in frumentario agro aut hortis pratisve, asperitate etiam vestium tenaci. efficax contra serpentes semine pota ex vino drachma et contra phalangia. sanguinis abundantiam ex vulneribus reprimunt folia inposita, sucus auribus infunditur.

33 XVI. Arction aliqui potius arcturum vocant. similis est verbasco foliis, nisi quod hirsutiora sunt, caule longo, molli, semine cumini. nascitur in petrosis, radice tenera, alba dulcique. decoquitur in vino ad dentium dolorem ita ut contineatur ore.¹ decoctum bibitur propter ischiada et stranguriam. ex vino ambustis inponitur et pernionibus. foveantur eadem cum radice semine trito in vino.

34 XVII. Asplenon sunt qui hemionion vocant, foliis trientalibus multis, radice limosa, cavernosa sicut

¹ ita ut contineatur ore *vulg.*: ut ore ita contineatur *Mayhoff*: ita *sine* ut *codd.*

^a *Praecordia* is a difficult word. It may mean: (1) the diaphragm, or the region just above it; (2) the two hypochondria; (3) the chest; (4) viscera generally. Here (2), the usual meaning, is perhaps to be preferred to (1).

^b Dioscorides III 90: ὑπόκοilon ἐκ μέσου ὡς ὀμφαλός.

^c The reading seems to be settled by § 108 of this book: decoctum . . . medetur ita, ut contineatur ore.

physician of no small authority, spread its fame, as did Aristogiton; it is excellent for wounds if applied pounded in water; taken however in drink it is equally good for blows on the breasts or on the hypochondria,^a likewise for spitting of blood. Some authorities have held that wounded patients should take it in drink. The further statement I think fabulous, that if burnt fresh it acts as solder for iron or copper.

XV. Aparine, called by some omphalocarpos, by *Aparine.* others philanthropos, is branchy, hairy, and with five or six leaves arranged at intervals in a circle around the branches. The seed is round, hard, hollowed,^b and rather sweet. It grows in cornfields, or gardens, or meadows, and is so prickly as even to cling to the clothes. The seed, taken in drachma doses in wine, is efficacious against the bite of serpents and poisonous spiders. The leaves, applied locally, check excessive bleeding from wounds. The juice is poured into the ears.

XVI. Arction, which some prefer to call arcturus, *Arction.* has leaves like those of verbascum, except that they are more hairy. The stem is long and soft, and the seed like that of cummin. It grows on rocky soils, and has a tender root, whitish and sweet. A decoction of it in wine is given for tooth-ache, but it must be retained in the mouth.^c The decoction is drunk for sciatica and strangury. In wine the root^d is applied to burns and chilblains, which are also fomented with the seed pounded in wine with the root.

XVII. Asplenon, called by some hemionion, has *Asplenon.* many leaves four inches long, a slimy root, pitted as is

^d It is necessary to put a full stop at *stranguriam* and to understand *herba* or *radix* as the subject of *inponitur*.

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filicis, candida, hirsuta, nec caulem nec florem nec semen habet. nascitur in petris parietibusque opacis, umidis, laudatissima in Creta. huius foliorum in aceto decocto per dies xxx potu lienem absumi aiunt, et illinuntur autem eadem. sedant et singultus. feminis non danda, quoniam sterilitatem facit.

35 XVIII. Asclepias folia hederæ habet, ramos longos, radices numerosas, tenues, odoratas, floris virus grave, semen securiclatum.¹ nascitur in montibus. radices torminibus medentur et contra serpentium ictus non solum potu, sed etiam inlitu.

36 XIX. Aster ab aliquis bubonion appellatur, quoniam inguinum præsentaneum remedium est. cauliculus foliis oblongis duobus aut tribus, in cacumine capitula stellæ modo radiata. bibitur et adversus serpentes. sed ad inguinum medicinam sinistra manu decerpi iubent et iuxta cinctus alligari. prodest et coxendicis dolori adalligata.

37 XX. Ascyron et ascyroides similia sunt inter se et hyperico, sed maiores habet ramos quod ascyroides vocatur, ferulaceos, ὅμνια² rubentes, capitulis parvis, luteis. semen in caliculis pusillum, nigrum, resinolum. comæ tritæ velut cruentant, qua de

¹ securiclatum V. *Detlefsen*, *Mayhoff*: securidacæ *Hermolaus Barbarus*. Cf. XVIII, § 155.

² omnia *codd.*: omnino *vulg.*: coma *Mayhoff*.

^a Dioscorides (III 134), says it is the leaves that are ἐντετμημένα and ἀνωθεν χλωρά.

^b Dioscorides has ἡμέρας τεσσαράκοντα.

^c The Greek βουβών means "groin."

^d I have left the *omnia* of the MSS. within daggers, as the *coma* of *Mayhoff* does not convince me. Dioscorides says (III 155) that it is the καρπός of ascyron that stains red, and of

a fern's, whitish and hairy.^a There is no stem, flower or seed. It grows on rocks and on shaded, damp walls, the most approved kind in Crete. A decoction of its leaves in vinegar, taken as a draught for thirty days,^b is said to reduce the spleen, the leaves being also applied locally. They relieve too hiccoughs. This plant, as it causes barrenness, must not be given to women.

XVIII. *Asclepias* has leaves like those of ivy, long branches, numerous roots that are slender and scented, stinking flowers, and a hatchet-shaped seed. It grows on hills. The roots cure colic and are used for snake bite; they are not only taken in drink but also applied locally.

XIX. *Aster* is called by some bubonion, because it is a sovereign remedy for affections of the groin.^c Its stem has two or three oblong leaves, and on the top are little heads with rays like stars. In drink it is also taken for snake bites. But as medicine for the groin it is enjoined to be plucked with the left hand, and to be tied as an amulet next the girdle. As an amulet it is also good for sciatica.

XX. *Ascyron* and *ascyroides* are like one another and also like *hypericon*, but what is called *ascyroides* has larger branches, which are like fennel-giant, red^d . . . and with small yellow heads. The seed, in little cups, is very small, black, and resinous. The hairy tufts when crushed cause stains like blood, and

androsaemon (III 156) he says : *πεφοινιγμένος τὰ ῥαβδία*. So possibly some word meaning "altogether" may be right. Professor Andrews writes : "It looks as if he were being more specific than Dioscorides, localising the staining substance in the filament, the hair-like part of the stamen that supports the anther."

PLINY : NATURAL HISTORY

causa quidam hanc androsaemon vocavere. usus seminis ad ischiadicos poti duabus drachmis in hydromelitis sextario. alvum solvit, bilem detrahit. inlinitur et ambustis.

38 XXI. Aphaca tenuia admodum folia habet et¹ pusilla. altior lenticula et² siliquas maiores fert in quibus terna aut quaterna semina sunt nigriora et minora lenticula. nascitur in arvis. natura ad spissandum efficacior quam lenti, reliquos usus eosdem habet. stomachi alvique fluctiones sistit semen decoctum.

39 XXII. Alcibium qualis esset herba non repperi apud auctores, sed radicem eius et folia trita ad serpentis morsum inponi et bibi, folia quantum manus capiat trita cum vini meri cyathis tribus aut radicem drachmarum trium pondere cum vini eadem mensura.

40 XXIII. Alektoros lophos, quae apud nos crista dicitur, folia habet similia gallinacei cristae plura, caulem tenuem, semen nigrum in siliquis. utilis tussientibus cocta cum faba fresa, melle addito et caligini oculorum. solidum semen coicetur in oculum, nec turbat, sed in se caliginem contrahit, mutat colorem et ex nigro albicare incipit et intumescit ac per se exit.

41 XXIV. Alum nos vocamus, Graeci symphyton petraeum simile cunilae bubulae, foliis parvis, ramis

¹ et *post* habet *coni. Mayhoff.*

² et VRd *Mayhoff*: est *Er vulg., Detlefsen.*

^a I.e. "man's blood."

^b A difficult sentence; perhaps Mayhoff's punctuation and conjecture (he adds *et* before *pusilla*) are the best solution. *Pusilla* might be taken with the next sentence, to explain the abrupt introduction of the lentil: "Though small it is yet taller than the lentil," but Dioscorides (II, 148) has merely:

therefore some have called the plant androsaemon.^a Two-drachmae doses of the seed, taken in a sextarius of hydromel, are used for sciatica. It loosens the bowels, brings away bile, and is applied to burns.

XXI. *Aphaca* has very slender and tiny ^b leaves. *Aphaca*. Taller than the lentil it also bears larger pods, in which are three or four seeds, darker and smaller than those of the lentil. It grows in cultivated fields, and has bracing^c qualities more powerful than those of the lentil, its other uses being the same. A decoction of the seed checks fluxes of the stomach and bowels.

XXII. In my authorities I have found no description of *alcibium*, but only that its pounded root and leaves are applied locally, and taken in drink, for snake bite; a handful of the pounded leaves with three cyathi of neat wine, or three drachmae by weight of the root with the same measure of wine. *Alcibium*.

XXIII. *Alectoros lophos*, which we Romans call "comb" (*crista*), has several leaves like a cock's comb, a slender stem, and black seed in pods. Boiled with ground beans it is useful for cough, and with the addition of honey for film on the eyes. The seed is cast whole into the eye; it does no harm but attracts the film to itself. Changing colour it begins to turn from black to white, swells, and works out by itself. *Alectoros lophos*.

XXIV. We Romans call *alum* what the Greeks call *symphyton petraeum*. It is like ox eunila, with small leaves and three or four branches growing from *Alum*.

φακοῦ ὑψηλότερος, λεπτόφυλλος. The Greek suggests that *pusilla* may be an addition (either by Pliny himself or by a scribe) to explain *tenuia*, but Pliny may have had before him a different Greek text.

^c Or "astringent."

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- tribus aut quattuor a radice, cacuminibus thymi, surculosum, odoratum, gustu dulce, salivam ciens, radice longa rutila. nascitur in petris ideo petraeum cognominatum, utilissimum lateribus, renibus, torminibus, pectori, pulmonibus, sanguinem reicientibus, faucibus asperis. bibitur radix trita et in vino
- 42 decocta, et aliquando superlinitur. quin et commanducata sitim sedat praecipueque pulmonem refrigerat. luxatis quoque inponitur et contusis, lenit interanea. alvum sistit cocta in cinere detractisque folliculis trita cum piperis granis novem et ex aqua pota. vulneribus sanandis tanta praestantia est ut carnes quoque, dum cocuntur, conglutinet addita, unde et Graeci nomen inposuere. ossibus quoque fractis medetur, XXV. alga rufa scorpionum ictibus.
- 43 XXVI. Actaea gravi foliorum odore, caulibus asperis geniculatis, semine nigro ut hederæ, bacis mollibus, nascitur in opacis et asperis aquosisque. datur acetabulo pleno interioribus feminarum morbis.
- 44 XXVII. Ampelos agria vocatur herba foliis duris cineracei coloris, qualem in satis diximus, viticulis longis, callosis, rubentibus, qualiter flos quem Iovis flammam appellamus. in uvolis¹ fert semen simile Punici mali acinis. radix eius decocta in aquae cyathis ternis, additis vini Coi cyathis duobus, alvum solvit leniter ideoque hydropicis datur. uvolae vitia cutis in facie mulierum emendant. ischiadicos quo-

¹ uvolis *Ianus e Dioscoride : varia codd.*

^a I.e. "coalescing," "grown together."

^b See XXIII § 19. The word *satis* is strange, as *sata* includes all cultivated plants and trees, and the reference accordingly seems vague. Perhaps Pliny means that this *wild* vine is described in his account of *cultivated* vines.

the root, which have tips like those of thyme; a ligneous plant, scented, sweet to the taste, promoting saliva, and with a long, red root. It grows on rocks (hence its surname *petraeum*, "rocky"), and is very useful for affections of the sides and kidneys, for colic, chest, lungs, spitting of blood, and sore throat. The root is pounded and taken in drink or boiled down in wine; sometimes too this is used as embrocation. Moreover, chewed it allays thirst, and is especially cooling to the lungs. It is also applied to dislocations and bruises, and it soothes the intestines. Cooked in hot ashes, pounded, after removal of the pods, with nine peppercorns and taken in water, it is binding to the bowels. So excellent is it for healing wounds that, added even to pieces of meat that are being boiled, it binds them together. Hence its Greek name *symphyton*.^a It is also good for broken bones.

XXV. Red seaweed for scorpion stings.

Alga rufa.

XXVI. *Actaea* has leaves with an offensive smell, rough and jointed stems, black seed like that of ivy, and soft berries. It grows on shaded, rough, watery ground. In doses of a full acetabulum it is given for internal diseases of women.

Actaea.

XXVII. *Ampelos agria* is a name given to a plant with hard leaves of an ashy colour, as I have described in my account of cultivated trees.^b It has long, hard-skinned twigs, of a red colour like the blossom we call flame of Jupiter. It bears in little clusters seed like pomegranate pips. Its root, boiled down in three cyathi of water with the addition of two cyathi of Coan wine, is a gentle aperient, and therefore is given to dropsical patients. The clusters remove the spots on women's faces. *Sciatica* too is

Ampelos agria.

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que uti hac herba prodest tusa cum foliis et inlita cum suco suo.

- 45 XXVIII. Absinthii genera plura sunt : Santonicum appellatur e Galliae civitate, Ponticum e Ponto, ubi pecora pinguescunt illo et ob id sine felle reperiuntur, neque aliud praestantius, multoque Italicum¹ amarius, sed medulla Pontici dulcis. de usu eius convenit, herbae facillimae atque inter paucas utilissimae, praeterea sacris populi Romani celebratae peculiari-
ter, siquidem Latinarum feriis quadrigae certant in Capitolio victorque absinthium bibit, credo, sanitatem praemio dari honorifice arbitratis maioribus. sto-
46 machum corroborat, et ob hoc sapor eius in vina transfertur, ut diximus. bibitur et decoctum aqua ac postea nocte et die refrigeratum sub divo,² †decoctis sex drachmis foliorum cum ramis suis in caelestis aquae sextarii tribus, oportet et salem addi. vetustissimum usu est†.³ bibitur et madefacti dilutum, ita enim appelletur hoc genus. diluti ratio ut, quisquis fuerit modus aquae, tegatur per triduum.

¹ Italicum d *Hard.*, *Mayhoff* : Italico VRE *Detlefsen*.

² divo E *vulg.*, *Detlefsen* : diu V¹Rd *Ianus*, *Mayhoff*.

³ †decoctis . . . usu est†] *Sic Detlefsen post Urlichs* : decoci VI drachmis foliorum cum ramis suis in caelestis aquae sextariis III oportet, nec non salem addi vetustissimi usus est *Mayhoff* : in *codd.* decocti aut decoctis, nec (*pro et*) vetustissime aut vetus sine usu est.

^a See XIV § 109.

^b I have kept *Detlefsen*'s text within daggers because no proposed emendation is quite satisfactory. The negative *nec* is probably genuine, but seems to require *sine usu* afterwards, leaving *vetus* without grammatical connection unless a full stop is put at *addi*. It is just possible to make sense of the MSS. reading if we do this and also accept the attractive *decoci* of *Mayhoff* : "six drachmae . . . ought to be boiled down

relieved by this plant ground up with the leaves and applied with its own juice.

XXVIII. There are several kinds of wormwood. *Absinthium.* The Santonic comes from the state of the Santoni in Gaul, the Pontic from Pontus, where cattle fatten on it, and so are found to be without gall; there is no finer wormwood than this, the Italian being far more bitter, but the pith of Pontic wormwood is sweet. About its use there is general agreement, for it is a plant very easily found, and one of the most useful, being moreover especially honoured at the religious rites of the Roman people, seeing that at the Latin festival there is a race for four-horse chariots on the Capitoline Hill, the winner of which takes a draught of wormwood, our ancestors thinking, I believe, that health was a very grand prize to give. It strengthens the stomach and for this reason it is used, as I have said,^a to give a flavour to wines. A decoction in water, which is afterwards cooled in the open for a day and a night, is also taken; six drachmae of the leaves with their branches are boiled down in three sextarii of rain water; salt too should be added. When very old it can still be used.^b There is also administered an infusion of wormwood in water; for this preparation should be styled "infusion," and an essential of the infusion is that, whatever quantity^c of water is used, for three days the preparation should be wholly enclosed. Pounded wormwood is rarely

without the addition of salt. When old the decoction cannot be used." Perhaps the *nec* looks to the occasions (§ 48) when we are told that salt is added. Mayhoff's emendations give us: "six drachmae . . . should be boiled down, and to add salt is a very old usage."

^c Perhaps "kind."

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- 47 tritum raro in usu est, sicut et sucus expressi. exprimitur autem, cum primum semen turgescit, madefactum aqua triduo recens aut siccum septem diebus, dein coctum in aeneo vaso ad tertias decem heminis in aquae sextariis XLV iterumque percolatum, herba electa,¹ coquitur ad crassitudinem mellis, qualiter ex minore centaurio quaeritur sucus. sed hic [absinthii]² inutilis stomacho capitique est,
- 48 cum sit ille decoctus³ saluberrimus. namque adstringit stomachum bilemque detrahit, urinam ciet, alvum emollit et in dolore sanat, ventris animalia pellit, malaciam stomachi et inflationes discutit cum sile et nardo Gallico, aceti exiguo addito. fastidia absterget, concoctiones adiuvat, cruditates detrahit cum ruta et pipere et sale. antiqui purgationis causa dabant cum marinae aquae veteris sextario seminis sex drachmas cum tribus salis, mellis cyatho.
- 49 efficacius purgat duplicato sale. diligenter autem teri debet propter difficultatem. quidam et in polenta dedere supra dictum pondus, addito puleio, alii pueris folia⁴ in fico sicca, ut amaritudinem fallerent. thoracem purgat cum iride sumptum. in regio morbo crudum bibitur cum apio aut adianto. adversus inflationes calidum paulatim sorbetur ex

¹ herba electa *Mayhoff*: herbae lecta V: herba elisa *Urlichs, Detlefsen*: herba lente *vulg.*: fortasse eiecta.

² absinthii] *In uncis Dal., Mayhoff.*

³ decoctus *cod. Dal., vulg., Mayhoff*: decocti T *Detlefsen*: decoctis *codd.*

⁴ folia] *In uncis Hard., Mayhoff.*

^a Literally "the juice of the squeezed wormwood."

employed; rarely too the extracted^a juice. It is extracted, however, as soon as the seed begins to swell, the plant^b being soaked in water for three days when fresh and for seven when dried; it is then boiled down to one third in a bronze vessel, ten heminae to forty-five sextarii of water; and after being strained to remove the solid pieces it is boiled down again to the thickness of honey, just like juice obtained from the lesser centaury. But this juice is injurious to the stomach and head, while the decoction I mentioned is very wholesome. For it is astringent to the stomach, and with sil, Gallic nard and a little vinegar, brings away bile, promotes urine, soothes the bowels, curing them when in pain, drives out worms from the belly, and removes nausea and flatulence. With rue, pepper and salt, it takes away the distaste for food, and aids digestion, bringing away undigested food. As a purge, the old custom was to give six drachmae of the seed, three of salt, and a cyathus of honey, in a sextarius of sea water kept for a time, the purge being more efficacious if the amount of salt is doubled. The pounding however must be carefully done, as it is a difficult task. Some have also given the aforesaid weight in pearl barley with the addition of pennyroyal; some the leaves in a dried fig to children, so that the bitter taste is not noticed. Taken with iris it purges the thorax. For jaundice it is taken raw in drink with celery or adiantum. For flatulence it is slowly sipped hot in water; for the liver it is taken with

^b Littré and the Bohn translators say the seed. This is possible with their reading *lente coquitur*, but scarcely so with *herba electa*, which I think must mean that the plant, and not the seed only, is used for the decoction.

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aqua, iocineris causa cum Gallico nardo, lienis cum
 50 aceto aut pulte aut fico sumitur. adversatur fungis
 ex aceto, item visco, cicutae ex vino et muris aranei
 morsibus, draconi marino, scorpionibus. oculorum
 claritati multum confert. epiphoris cum passo in-
 ponitur, suggillatis cum melle. aures decocti¹
 eius vapor suffitu sanat aut, si manent sanie, cum
 melle tritum. urinam ac menses cient tres quat-
 tuorve ramuli cum Gallici nardi radice una, cyathis
 51 aquae sex, menses privatim cum melle sumptum
 et in vellere adpositum. anginae subvenit cum melle
 et nitro. epinyetidas ex aqua sanat, volnera recentia
 prius quam aqua tangantur inpositum, praeterea
 capitis ulcera. peculiariter ilibus inponitur cum
 52 Cypria cera aut cum fico. sanat et pruritus. non est
 dandum in febris. nausias maris arcet in naviga-
 tionibus potum, inguinum tumorem in ventrali habi-
 tum. somnos adlicit olfactum aut inscio sub capite
 positum. vestibus insertum tineas arcet. culices ex
 oleo perunctis abigit et fumo, si uratur. atramentum
 librarium ex diluto eius temperatum litteras a muscu-
 lis² tuetur. capillum denigrat absinthii cinis un-
 guento rosaceoque permixtus.

53 XXIX. Est et absinthium marinum, quod quidam
 seriphum vocant, probatissimum in Taposiri Aegypti.
 huius ramum Isiacy praeferre sollemne habent.

¹ decocti *Mayhoff*: decoctae *multi codd.*, *Dettefsen*:
 decocte R d.

² musculis d(?) *Hermolaus Barbarus e Dioscoride*: muscis
plerique codd., *vulg.*

^a See XXVI § 31.

^b Or "and."

^c The *ilia* are the upper abdomen from the ribs to the pubes;
 the *ingen* is the lower abdomen on either side of the pubes.

Gallic nard; for the spleen, with vinegar, pottage or fig. In vinegar it is an antidote to poisonous fungi, as also to mistletoe; in wine, to hemlock, the poison of the shrew mouse, sea weever^a and scorpions. It is a great aid to clear vision. With raisin wine it is applied to eye fluxes, and with honey to bruises. Ear trouble is cured by fumigation with the steam of the decoction, or when bloody pus exudes, by pounded wormwood with honey. Three or four twigs, with one root of Gallic nard and six cyathi of water, are diuretic and an emmenagogue; it is specific for faulty menstruation if taken with honey or^b applied as a pessary in wool. With honey and soda it is helpful for quinsy. In water it cures night rashes. Recent wounds it heals if applied before they have been touched with water; it cures, moreover, sores on the head. With Cyprian wax or with fig it makes an exceptionally good application for affections of the flanks.^c It also cures pruritus, but must not be given to feverish patients. Taken in drink on sea voyages it prevents nausea; worn under a belly-band, swellings of the groin.^c It induces sleep if inhaled through the nose or placed secretly under the sufferer's head. Put into clothes it keeps away moth. Rubbing the body all over with it in oil drives away gnats, as does the smoke of it when burnt. Writing ink mixed with the infusion protects the writing from mice. Ashes of wormwood mixed with ointment and rose-oil stain the hair black.

XXIX. There is also a sea wormwood, called by some seriphum, the most approved growing at Taposiris in Egypt. At the ceremonies of Isis the priests carry a branch of it ritually before them.

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angustius priore minusque amarum, stomacho inimicum, alvum mollit pellitque animalia interaneorum. bibitur cum oleo et sale aut in farinae trimestris sorbitione dilutum. coquitur quantum manus capiat in aquae sextario ad dimidias.

54 XXX. Balloten alio nomine porrum nigrum Graeci vocant, herbam fruticosam angulosis caulibus nigris, hirsutis foliis vestientibus, maioribus quam porri et nigrioribus, graveolentibus. vis eius efficax adversus canis morsus ex sale foliis tritis inpositae, item ad condylomata coctis cinere in folio oleris. purgat et sordida ulcera cum melle.

55 XXXI. Botrys fruticosa herba est luteis ramulis. semen circa totos nascitur, folia cichorio similia. invenitur in torrentium ripis, medetur orthopnoicis. hoc Cappadoces ambrosiam vocant, alii artemisiam.

XXXII. Brabilla spissandi vim habet cotonei mali modo, nec amplius de ea tradunt auctores.

56 XXXIII. Bryon marinum herba sine dubitatione est lactucae foliis similis, rugosa velut contracta, sine caule ab una radice exeuntibus foliis. nascitur in scopulis maxime testisque terra comprehensis. prae-

^a That this is the meaning of *dilutum* seems to be likely from the phrase in Dioscorides (III 23) *σὺν ροφήματι φακῆς καθεψηθείσα*.

^b Dioscorides has (III 103): *καυλοὺς ἀνίησι τετραγώνους*.

^c Dioscorides (*loc. cit.*) *δυσώδη*.

^d It is uncertain whether *in folio oleris* goes with *coctis* or with *impositae* (understood). There is nothing in Dioscorides to correspond.

^e Sometimes spelt *brabyla*.

^f Or, "bracing," or, "thickening."

^g Not mere seaweed, as Theophrastus (*H.P.* IV vi 6) seems to suggest.

Narrower than the former, and less bitter, it is injurious to the stomach, but softens the bowels and expels intestinal worms. It is taken in drink with oil and salt, or infused^a into gruel of three-month wheat. A handful is boiled down in a sextarius of water to one-half.

XXX. *Ballote* has a second name, black leek, given to it by the Greeks. It is a bushy plant, with quadrangulate,^b dark stems, covered with hairy leaves, larger and darker than those of leek, and with an offensive smell.^c It proves an effective antidote to dog-bites, the pounded leaves being laid with salt on the wound; cooked also in hot ashes and wrapped in a cabbage leaf^d they are applied to condylomata. With honey the plant also cleanses foul ulcers.

XXXI. *Botrys* is a bushy plant with yellow twigs. Seed grows all round them, and the leaves are like those of chicory. It is found on the banks of torrents, and is used as treatment for orthopnoea. The Cappadocians call it ambrosia, others artemisia.

XXXII. *Brabilla*^e has an astringent^f property like the quince; apart from this my authorities tell me nothing about it.

XXXIII. Sea bryon is without doubt a plant^g; it has leaves like those of lettuce, wrinkled, and as it were crumpled.^h It has no stem, the leaves growing out of a single root. It grows more especially upon rocks and on shells sunk in the ground.ⁱ Its special

^a See Theophrastus *loc. cit.*: ῥυτιδωδέστερον καὶ ὥσπερ συνεσπασμένον.

ⁱ See Theophrastus *loc. cit.*: ἐπὶ τῶν λίθων . . . πρὸς τῇ γῇ καὶ τῶν ὀστράκων, and Dioscorides (IV 98): φύεται ἐπὶ λίθων καὶ ὀστράκων παρὰ θαλάσση. Is Pliny's *terra comprehensis* a mistranslation?

cipua siccandi spissandique vis ei et collectiones inflammationesque omnes inhibendi, praecipue podagrae et quicquid refrigerari opus sit.

- 57 XXXIV. Bupleuri semen ad ictus serpentium dari reperio foverique plagas decocta ea herba adiectis foliis mori aut origani.

XXXV. Catanancen Thessalam herbam qualis sit describi a nobis supervacuum est, cum sit usus eius ad amatoria tantum. illud non ab re est dixisse ad detegendas magicas vanitates, electam ad hunc usum coniectura, quoniam arescens contraheret se ad speciem unguium milvi exanimati. eadem ex causa et cemos silebitur nobis.

- 58 XXXVI. Calyx duorum generum est. una similis aro nascitur in arationibus, colligitur antequam inarescat, usus eosdem habet quos aris.¹ bibitur quoque radix huius ad exinaniendas alvos mensesque mulierum, item caules cum foliis in leguminibus
59 decocti sanant tenesmon. XXXVII. alterum genus eius quidam anchusam vocant, alii rhinocliam.² folia³ lactucae longiora, plumosa, radice rubra, quae ignes sacros cum flore polentae sanat inposita, iocine-
ris autem vitia in vino albo pota.

- 60 XXXVIII. Circaea trychno sativo similis est, flore nigro pusillo, parvo semine milii nascente in quibusdam corniculis, radice semipedali, triplici fere aut quadruplici, alba, odorata, gustus calidi. nascitur in

¹ aris *Hard.*: ars aut hars *codd.*: post ars in *codd.* a, unde at *coni.* *Mayhoff*: om. *Dettlesen*.

² rhinocliam *Ianus* e *Plinii indice*: onocliam *Sillig* e *Dioscoride*: varia *codd.*

³ folia d *E vulg.*, *Mayhoff*: folio VR *Dettlesen*, qui longiore et plumoso *coni.*

^a Or, "to thicken."

properties are to dry, astringency,^a and to reduce all gatherings and inflammations, in particular those of gout, and whenever there is need of cooling applications.

XXXIV. The seed of bupleuron I find is given for *Bupleuron*. snake bite, and that wounds are fomented with a decoction of this plant to which has been added leaves of mulberry or of origanum.

XXXV. Catanance, a Thessalian plant, it would be *Catanance*. a waste of time for me to describe, since it is used only for love-potions. One thing it is quite pertinent to say in order to show up the fraud of sorcery: the plant was chosen for this purpose through an inference^b because as it withers it crumples up into the shape of the claws of a dead kite.^c For the same reason I shall say nothing about cemos.

XXXVI. There are two kinds of calyx. One is *Calyx*. like arum, and grows on ploughed land. It is gathered before it withers, and has the same uses as aris. Its root is also taken in drink as a powerful aperient and emmenagogue, while its stalks, boiled down with the leaves in pulse, cures tenesmus.

XXXVII. The other kind of it is called by some anchusa, by others rhinoclia, having leaves like those of lettuce, but longer and downy, and a red root. This applied with the finest pearl barley cures erysipelas, and, taken in white wine, liver complaints.

XXXVIII. Circaea is like cultivated trychnos, *Circaea*. having a tiny, dark flower, small seed like that of millet forming in a sort of little horn, a six-inch root, generally triple or quadruple, whitish, scented, and with a hot taste. It grows on sunny rocks. An

^b *Coniectura* is an interpretation of a diviner.

^c By imitative magic it hooks its victim.

PLINY : NATURAL HISTORY

apricis saxis. diluitur in vino bibiturque ad dolorem vulvae et vitia. macerari oportet in sextariis tribus quadrantem radicis tusae nocte et die¹; trahit eadem potio et² secundas. semine lac minuit³ in vino aut mulsa aqua poto.

- 61 XXXIX. Cirsion cauleculus est tener duum cubitorum, triangulo similis, foliis spinosis circumdatus. spinæ molles sunt. folia bovis linguae similia, minora, subcandida, in cacumine capitula purpurea quæ solvuntur in lanugines. hanc herbam radicemve eius adalligatam dolores varicum sanare tradunt.
- 62 XL. Crataegonon spicæ tritici simile est, multis calamis ex una radice emicantibus multorumque geniculorum, in opacis, semine milii, vehementer aspero gustu, quod si bibant ex vino ante cenam tribus obolis in cyathis aquæ totidem mulier ac vir ante conceptum diebus XL, virilis sexus partum futurum aiunt. et alia est crataegonos quæ thely-
- 63 gonos vocatur. differentia intellegitur lenitate gustus. sunt qui florem crataegoni bibentes mulierum intra XL diem concipere tradant. eadem sanant ulcera vetera nigra cum melle, explent sinus ulcerum et atrophæ carnosiora faciunt, purulenta expurgant, panos discutiunt, podagras collectionesque omnes

¹ nocte et die *plures codd.*, Mayhoff: noctem et diem E Detlefsen.

² potio et *codd.*, Detlefsen: potione Mayhoff.

³ minuit *in uncis ponit Mayhoff*, Dioscoridem secutus.

^a Dioscorides (III 119) has γάλα κατασπᾶ, and therefore Mayhoff brackets *minuit*. Perhaps Pliny thought that κατασπᾶ means "keeps (draws) away from the breasts."

^b A "soft prickle" may sound strange, but is quite intelligible. Perhaps here "spine" might be better.

infusion of it in wine is taken for uterine pains and affections. Three ounces of the pounded root should be steeped for a night and a day in three sextarii of wine. The same draught also brings away the after-birth. The seed taken in wine or hydromel reduces ^a the supply of milk.

XXXIX. *Cirsion* is a tender, little sprout, two cubits high, triangular, and surrounded by prickly leaves, the prickles ^b being soft. The leaves are like those of bugloss, but smaller, and whitish. At the tip are small, purple heads, which fall off as down.^c It is said that this plant, or its root, used as an amulet, cures the pain of varicose veins.

XL. *Crataegonon* is like an ear of wheat, with many reed-like shoots, full of joints, springing from a single root. It is found in shaded places. The seed is like that of millet, with a very sharp taste. If three oboli of it in three cyathi of water are taken in wine before supper by the woman, and also by the man, for forty days before conception ^d takes place, the child they say will be of the male sex. There is another *crataegonos*, which is called *thelygonos*; it is distinguished from the other by its mild taste. There are some who maintain that women who take the flower of *crataegonos* in drink conceive within forty days. These plants with honey also heal chronic black ulcers, fill up the pits of ulcers, add flesh to atrophied parts, thoroughly cleanse purulent sores, disperse superficial abscesses, and soothe gout and every kind of gathering, in particular those on

^c Littré: "qui tombent en duvet"; so the Bohn translators. Perhaps better: "which break up (turn) into down."

^d Littré takes *ante* to be an adverb and *conceptum* a participle: "l'enfant, même conçu depuis quarante jours."

PLINY : NATURAL HISTORY

leniunt, peculiariter mammarum. Theophrastus arboris genus intellegi voluit crataegon¹ sive crataegona, quam Itali aquifolium vocant.

64 XLI. Crocodileon chamaeleonis herbae nigrae figuram habet, radice longa aequaliter crassa, odoris asperi. nascitur in sabuletis. pota sanguinem per nares pellit copiosum crassumque; item² lienes consumere dicitur.

65 XLII. Cynosorchim aliqui orchim vocant, foliis oleae, mollibus, ternis per semipedem longitudinis in terra stratis, radice bulbosa, oblonga, duplici ordine, superiore quae durior est, inferiore quae mollior. eduntur ut bulbi coctae, in vineis fere inventae. ex his radicibus si maiorem edant viri, mares generari dicunt, si minorem feminae, alterum sexum. in Thessalia molliorem in lacte caprino viri bibunt ad stimulandos coitus, duriorem vero ad inhibendos. adversantur altera alteri.

66 XLIII. Chrysolachanum in pineto lactucae simile nascitur. sanat nervos incisos, si confestim inponatur. et alibi genus chrysolachani traditur, flore aureo, foliis oleris. coctum estur ut olus molle. haec herba adalligata morbum regium habentibus ita ut spectari ab his possit sanare id malum traditur.

¹ crataegon Hard. e Theophrasto, Mayhoff: crataegonon Detlefsen cum multis codd.

² item Urlichs, Detlefsen: ita et Mayhoff: ita aut ida codd.

^a See Theophrastus, *H.P.* III 15, 6. The tree described there is a type of thorn, perhaps *Crataegus Heldreichii*. But *aquifolium* is our holly. A mistake apparently of Pliny.

^b The *ita* of the MSS. may be right, but it generally refers to some more elaborate preparation than the single word *pota*.

the breasts. By crataegos or crataegon Theophrastus ^a would have us understand the tree which in Italy is called aquifolium.

XLI. Crocodileon is like black chamaeleon in *Crocodileon*. shape, with a long root uniformly thick, and a pungent smell. It grows in sandy places. Taken in drink it causes copious epistaxis of thick blood; it is also ^b said to reduce the spleen.

XLII. Cynosorchis, called by some orchis, has *Cynosorchis*. leaves like olive leaves, soft, three ^c in number and lying on the ground to the length of half a foot. The root is bulbous, longish, and in two parts, the upper being harder and the lower softer. Found generally in vineyards these are boiled and eaten as are bulbs. If men eat the larger of these roots, male children are said to be conceived, but female if the smaller is eaten by women. In Thessaly men take in goat's milk the softer root as an aphrodisiac, but the harder as an antaphrodisiac. The one part neutralizes the other.

XLIII. Chrysolachanum, growing in pine woods, is *Chrysolachanum* like lettuce. If applied at once it heals cut sinews. *and other plants*. Elsewhere too is said to grow a kind of chrysolachanum with a golden flower and leaves like those of cabbage. It is eaten boiled as a soft ^d vegetable. This plant, tied on as an amulet so that the patient can look at it, is said to cure jaundice. I know that

^c Parts of the description are not in Dioscorides (III 126), but the two authorities in this chapter are remarkably alike, though with startling differences. *E.g.*, Dioscorides has: *προσιστορεῖται δ' ἔτι καὶ τὰς ἐν Θεσσαλία γυναῖκας τὸν μὲν ἀπαλὸν κ.τ.λ.*, where Pliny has *virī*.

^d So Littré. The Bohn translators say "laxative"; but I can find only one instance of *mollis* in (almost) that sense, being used however as an epithet of *alvus*, *i.e.*, "relaxed bowels."

PLINY : NATURAL HISTORY

- 67 de chrysolachano nec satis dici scio nec plura reperio, namque et hoc vitio laboravere proximi utique herbarii nostri, quod ipsis notas veluti vulgares strictim et nominibus tantum indicavere, tamquam coagulo terrae alvum sisti, stranguriam dissolvi, si bibatur ex
68 aqua aut vino, XLIV. cuculli¹ folia trita cum aceto serpentium ictibus et scorpionum mederi. quidam hanc alio nomine strumum appellant, alii Graece strychnum, acinos habet nigros. ex his cyathus suci cum mulsi duobus medetur lumbis, item capitis dolori cum rosaceo infusus, ipsa strumae² inlita.
- 69 XLV. Peculiaris est Alpinis maxime fluminibus conferva appellata a conferuminando, spongea aquarum dulcium verius quam muscus aut herba, villosae densitatis atque fistulosae. curatum ea scio omnibus fere ossibus confractis prolapsum ex arbore alta putatorem, circumdata universo corpori, aquam suam adspergentibus quotiens inaresceret, raroque nec nisi deficientem herbam mutationis causa resolvablentibus, convaluisse vix credibili celeritate.
- 70 XLVI. Cocco Cnidio color cocci, magnitudo grano piperis maior, vis ardens. itaque in pane devoratur ne adurat gulam transitu. vis praesentanea contra cicutam, sistit alvum.

¹ cuculli *coni*. *Dellefsen*, quem sequitur *Mayhoff*: *aliae coniecturae sunt cucubali et cacubali*: cuculi aut culiculi *codd.*

² strumae *Ianus*, *Mayhoff*: struma *codd.*, *Dellefsen*.

^a Or, "arrests diarrhoea," "binds the bowels."

^b Literally, "cures strangury."

this account of chrysolachanum is inadequate, yet I find no more detail given, for a further fault of which our modern herbalists, at least, are guilty is that they have described but briefly, and even by a mere name, plants well known to themselves just as if these were generally familiar. They say, for instance, that coagulum terrae (earth rennet) is constipating^a and diuretic^b if taken in water or wine, and that (XLIV) the pounded leaves of cucullus with vinegar cure the bites of serpents and the stings of scorpions. Some give this plant another name, strumus, others the Greek name of strychnus. It has black berries; a cyathus of juice from these, with two of honey wine, is good treatment for lumbago, as also for headache if used with rose oil for bathing the brow, while for scrofulous sores the plant itself is applied locally.

XLV. *Conferva* is peculiar to running streams, *Conferva*. Alpine in particular, so named from *conferuminare*, to solder together. It is more like a fresh-water sponge than a moss or vascular plant, being a hairy, dense, and porous mass. To my knowledge a man who, pruning a very high tree, fell and broke nearly all his bones, was treated with this plant. His entire body was enveloped in it; whenever it dried it was sprinkled with its native water but rarely taken off, only in fact for renewals when the plant lost its strength. The patient recovered in an almost incredibly short time.

XLVI. The Cnidian grain has the colour of kermes-red, and in size is larger than a peppercorn. Its heating properties are so great that it is swallowed in bread, lest it should scorch the throat in its passage. A sovereign remedy for hemlock poisoning, it also checks looseness of the bowels. *Coccus Cnidius*.

PLINY : NATURAL HISTORY

- 71 XLVII. Dipsacos folia habet lactucae bullasque spinosas in dorsi medio, caulem duum cubitorum isdem spinis horridum, genicula eius binis foliis amplexantibus concavo alarum sinu in quo subsistit ros salsus. in cacumine capitula sunt echinata spinis. nascitur in aquosis. sanat rimas sedis, item fistulas decocta in vino radice usque dum sit crassitudo cerae. ut possit in fistulas collyrium mitti, item verrucas omnium generum. quidam et alarum quas supra diximus sucum inlinunt his.
- 72 XLVIII. Dryopteris felicis similis in arboribus nascitur, tenui foliorum subdulcium incisura, radice hirsuta. vis ei caustica est, ideo et psilotrum est radix tusa, inlinitur enim usque dum sudores evocet iterum et tertium ita ne sudor abluatur.
- 73 XLIX. Drabe phono¹ similis herba est cauliculis tenuibus cubitalibus, circumdatis utrimque foliis pollicari amplitudine qualia oxymyrsines, sed candidioribus mollioribusque, flore candido sabuci. edunt cauliculos decoctos, semine vero eius pro pipere utuntur.
- 74 L. Elatine folia habet casiae,² pusilla, pilosa, rotunda, semipedalibus ramulis quinis senisque a radice statim foliosis. nascitur in segete, acerba gustu et ideo oculorum fluctationibus efficax foliis cum polenta tritis et inpositis, subdito linteolo. eadem

¹ drabe phono *Dellefsen coll. indice Pl. et XXI § 95* : draeffono VRE : draphono d : dryophonon *Caesarius*.

² casiae *codd.* : helxinae e *Dioscoride Hermolaus Barbarus*.

XLVII. *Dipsacos* has leaves like those of lettuce, *Dipsacus*. with prickly knobs on the middle of their backs. The stem, two cubits long and rough with the same prickles, has joints enfolded by pairs of leaves, forming hollow axils in which collects a salt, dewy fluid. On the top of the stem are little heads, which bristle with prickles. The plant grows on watery ground. A decoction of the root in wine heals chaps of the anus; fistulas as well, but the decoction must be reduced to the consistency of wax, so that a suppository may be inserted into the fistula. It also removes warts of all kinds, for which purpose some apply the juice that is found in the axils which I mentioned above.

XLVIII. *Dryopteris*, which is like fern, grows on *Dryopteris*. trees; it has sweetish leaves with a slight indentation and a hairy root. It has caustic properties, so that its crushed root is also used as a depilatory, for it is rubbed on until the skin sweats, and then again and a third time without washing the sweat away.^a

XLIX. *Drabe* is a similar plant to *phonos*, with *Drabe*. slender stalks a cubit high surrounded on either side by leaves the size of a thumb, similar to those of oxymyrsine, but whiter and softer. The blossom is white and like that of the elder. The stalks are eaten boiled, but its seed is used instead of pepper.

L. *Elatine* has leaves like those of cassia, very *Elatine*. small, shaggy and round, with five or six little branches, half a foot long, which are covered with leaves right from the root. The plant grows among the corn, is harsh to the taste and therefore good for fluxes of the eyes; the leaves are pounded with pearl barley and applied, a napkin being placed under-

^a Or, "so that the sweating may not be interrupted."

PLINY : NATURAL HISTORY

cum lini semine cocta sorbitionis usu dysinteria liberat.

75 LI. Empetros, quam nostri calcifragam vocant, nascitur in montibus maritimis, fere in saxo. quae propius mari fuit salsa est potaque trahit bilem ac pituitas, quae longius magisque terrena amarior sentitur. trahit aquam, sumitur autem in iure aliquo aut in hydromelite, vetustate vires perdit, recens urinas ciet decoctum in aqua vel tritum calculosque frangit. qui fidem promisso huic quae-runt, adfirmant lapillos qui subfervefiant una rumpi.

76 LII. Epicactis ab aliis elleborine vocatur, parva herba, exiguis foliis, iocineris vitiis utilissima et contra venena pota.

LIII. Epimedion caulis est non magnus hederæ foliis denis atque duodenis, numquam florens, radice tenui, nigra, gravi odore ac¹ . . . in umidis nascitur. et huic spissandi refrigerandique natura, feminis cavenda. folia in vino trita virginum mammas cohibent.

77 LIV. Enneaphyllon longa folia novena habet causticae naturae. inponitur lana circumdatum ne urat latius, continuo enim pusulas excitat, lumborum doloribus et coxendicum utilissimum.

78 LV. Filicis duo genera. nec florem habent nec semen. pterim vocant Graeci, alii blachnon, cuius ex

¹ ac VdT: hac R: om. E Sillig, Detlefsen: lacunam indicat Mayhoff e Diosc. IV 19 (ρίζαι . . . γευσάμενῳ μωραί).

^a Littré: "entre deux linges."

^b Littré: "prise en potage."

^c Of dropsy?

^d This seems to be the force of *atque*, but Dioscorides has only ἤ.

neath.^a The plant boiled with linseed makes a gruel ^b that cures dysentery.

LI. *Empetros*, called *calcifraga* by us Romans, *Empetros*. is found on coastal mountains, generally on a rock. When it has grown near the sea it is salt, and taken in drink brings away bile and phlegms; when farther off and in deeper soil it tastes more bitter. It brings away fluid,^c and is taken in broth of some kind or in hydromel. When stale it loses its potency, but when fresh and boiled down in water or beaten up it is diuretic and breaks up stone in the bladder. Those who seek to win belief in this assurance assert that pebbles boiled with it are broken up.

LII. *Epicactis*, called by some *elleborine*, is a *Epicactis*. small plant with tiny leaves; taken in drink it is very useful for liver complaints and to counteract poisons.

LIII. *Epimedium* is a stem, not large, with ten or even ^d twelve leaves like ivy leaves. It never flowers, has a slender, blackish, evil-smelling root, and . . .^e This plant, which grows in damp soils, is one of those with bracing and cooling properties, and should be avoided by women. Its leaves, beaten up in wine, check the growth of maidens' breasts. *Epimedium*.

LIV. *Enneaphyllon* has nine long leaves, and is of *Enneaphyllon*. a caustic nature. When applied it is wrapped up in wool, lest it cauterize too far,^f for it raises blisters immediately. It is very good for the pains of lumbago and sciatica.

LV. Ferns are of two kinds, neither having blossom *Filix*. or seed. Some Greeks call *pteris*, others *blachnon*, the kind from the sole root of which shoot out several

^a Mayhoff would fill up the lacuna by *gustu languido*, "an insipid taste," from Dioscorides.

^f Perhaps, "too deeply."

PLINY : NATURAL HISTORY

una radice conplures exeunt filices bina etiam cubita
excedentes longitudine, non graves odore. hanc
marem existimant. alterum genus thelypterim
Graeci vocant, alii nymphaeam pterim, est autem
singularis atque non fruticosa, brevior molliorque et
79 densior, foliis ad radicem canaliculata. utriusque
radice sues pinguescunt, folia utriusque lateribus
pinnata, unde nomen Graeci inposuere. radices
utriusque longae in oblicum, nigrae, praecipue cum
inaruere. siccari autem eas sole oportet. nascuntur
ubique, sed maxime frigido solo. effodi debent
vergiliis occidentibus. usus radicis in trimatu tan-
tum, neque ante nec postea. pellunt interaneorum
animalia, ex his taenias cum melle, cetera ex vino
dulci triduo potae, utraque stomacho inutilissima.
alvum solvit primo bilem trahens, mox aquam, melius
80 taenias cum scamonii pari pondere. radix eius
pondere duum obolorum ex aqua post unius diei
abstinentiam bibitur, melle praegustato, contra
rheumatismos. neutra danda mulieribus, quoniam
gravidis abortum, ceteris sterilitatem facit. farina
earum ulceribus tactris inspergitur, iumentorum quo-
que in cervicibus. folia cimicem necant, serpentem
non recipiunt, ideo substerni utile est in locis sus-
pectis, usta etiam fugant nidore. fecere medici

^a Dioscorides (IV 184) has ὑποδυσώδη, "rather rank."

^b The Greek πτερόν means "feather."

^c Both Detlefsen and Mayhoff omit the comma after *praegustato*. To do so improves the run of the sentence: "taking honey beforehand to prevent fluxes." But it leaves unmentioned the ailment for which this particular treatment

other ferns exceeding even two cubits in length, with a not unpleasant smell.^a This is considered male. The other kind the Greeks call *thelypteris*, some *nymphaea pteris*. It has only one stem, and is not bushy, but shorter, softer and more compact than the other, and channelled with leaves at the root. The root of both kinds fattens pigs. In both kinds the leaves are pinnate on either side, whence the Greeks have named them "*pteris*."^b The roots of both are long, slanting, and blackish, especially when they have lost moisture; they should, however, be dried in the sun. Ferns grow everywhere, but especially in a cold soil. They ought to be dug up at the setting of the Pleiades. The root must be used only at the end of three years, neither earlier nor later. Ferns expel intestinal worms, tapeworms when taken with honey, but for other worms they must be taken in sweet wine on three consecutive days; both kinds are very injurious to the stomach. Fern opens the bowels, bringing away first bile, then fluid, tapeworms better with an equal weight of scammony. To treat catarrhal fluxes two oboli by weight of the root are taken in water after fasting for one day, with a taste of honey beforehand.^c Neither fern should be given to women, since either causes a miscarriage when they are pregnant, and barrenness when they are not. Reduced to powder they are sprinkled over foul ulcers as well as on the necks of draught animals. The leaves kill lice and will not harbour snakes, so that it is well to spread them in suspected places; by the smell too when burnt they drive away these creatures. Among ferns also was a remedy; it is naturally, in spite of the order of words, *rheumatismi*.

PLINY : NATURAL HISTORY

huius quoque herbae discrimen, optima Macedonica est, secunda Cassiopica.

- 81 LVI. Femur bubulum appellatur herba nervis et ipsa utilis recens in aceto ac sale trita.

LVII. Galeopsis aut, ut alii, galeobdolon vel galion caulem et folia habet urticae leviora et quae gravem odorem trita reddant, flore purpureo. nascitur circa saepes ac semitas ubique. folia caulesque duritias et carcinomata sanant ex aceto trita et inposita, item strumas, panos, parotidas discutiunt. ex usu est et decoctae suco fovere. putrescentia quoque et gangraenas sanat cum sale.

- 82 LVIII. Glaux antiquitus eugalacton vocabatur, cytiso et lenticulae foliis similis; aversa candidiora. rami in terram serpunt quini seni admodum tenues a radice. flosculi purpurei exeunt.¹ invenitur iuxta mare. coquitur in sorbitione similaginis ad excitandam ubertatem lactis. eam qui² hauserint balineis uti convenit.

- 83 LIX. Glaucion in Syria et Parthia nascitur, humilis herba densis foliis fere papaveris, minoribus tamen sordidioribusque, odoris taetri, gustus amari cum adstrictione. granum habet crocei coloris. hoc in olla fictili luto circumlita in clibanis calfaciunt, deinde exempto sucum exprimunt eiusdem nominis. usus et suci et foliorum, si terantur, adversus epiphoras

¹ exeunt] *Ut Mayhoff hic distinguo.*

² qui *codd.*, *Detlefsen*, *Mayhoff*: quae *vet. Dal.*, *Sillig*: *Mayhoff coni.* cumque.

^a A town in Coreyra.

^b *Et ipsa* might mean "even by itself," "without further addition." The translation takes it to be: "itself also."

^c Note this meaning of *ex usu est*. See XXV § 175.

^d The *qui* is strange, and may be an early mistake for *quae*.

physicians have their preference; the Macedonian is the best, the next best comes from Cassiope.^a

LVI. Femur bubulum ("ox thigh") is the name given to a plant which, applied fresh and beaten up in vinegar and salt, is one of the remedies^b beneficial for the sinews. *Femur bubulum.*

LVII. Galeopsis, called by some galeobdolon or galion, has stem and leaves like those of the nettle, but smoother, and giving off when beaten up an offensive smell; the flower is purple. It grows along hedges and lanes everywhere. Its leaves and stalks, beaten up in vinegar and applied, cure indurations and malignant growths, dispersing serofulous sores, superficial abscesses and parotid swellings. It is also beneficial^c to use the juice of a decoction as a fomentation. With the addition of salt moreover it heals festering sores and gangrenes. *Galeopsis.*

LVIII. Glaux, called of old eugalaeton, has leaves like those of eytisu and the lentil; they are whiter underneath. The branches, five or six in number, extremely slender and springing from the root, lie along the ground; on them form small, purple blossoms. It is found near the sea, and is boiled in similago porridge to stimulate a rich supply of milk; those who^d have drunk a dose should proceed to a bath. *Glaux.*

LIX. Glaucion grows in Syria and Parthia, a low plant, with tightly packed leaves, rather like those of the poppy but smaller and dirtier looking; it has a foul smell and a bitter, astringent taste. The seed, of a saffron colour, is put into a pot luted with fuller's clay and heated in an oven. Then it is taken out, and a juice of the same name is extracted from it. Both the juice and beaten-up leaves are used for the *Glaucion.*

quae universo impetu cadant. hinc temperatur collyrium quod medici dia glauciu vocant. lactis quoque ubertas intermissa restituitur. sumitur huius rei causa ex aqua.

- 84 LX. Glycyside, quam aliqui paeoniam aut pentorobon vocant, caulem habet duum palmorum,¹ comitantibus duobus aut tribus, subrutilum, cute lauri, folia qualia isatis, pinguiora rotundioraque et minora, semen in siliquis, aliud grano rubente, aliud nigro.
- 85 duo autem genera sunt: femina existimatur cuius radicibus ceu balani longiores circiter octo aut sex adhaerent. mas plures non habet, quoniam una radice nixus est palmi altitudine, candida, quae gustu adstringit. feminae folia murram redolent et densiora sunt. nascuntur in silvis. tradunt nocte effodiendas, quoniam interdiu periculosum sit pico Martio inpetum in oculos faciente; radix vero cum effodiatur, periculum esse ne sedes procidat, magna vanitate ad ostentationem rei fictum arbitror. usus
- 86 in his diversus. rubra grana rubentes menses sistunt xv fere pota in vino nigro. nigra grana vulvis medentur ex passo aut vino totidem pota. radix omnes ventris dolores sedat in vino alvumque purgat, sanat opisthotonum, morbum regium, renes, vesicam, arteriam autem et stomachum decocta in vino, alvumque sistit. estur etiam in alimentis,² sed in

¹ palmorum *plerique codd.* (sic *Dioscorides*), *Mayhoff*: cubitorum *Er, vulg., Deilefsen.*

² in alimentis *Ianus, Mayhoff, cod. Murbacensis*: contra malum mentis *RE vulg., Deilefsen.*

^a Some old editions have *universae uno impetu cadunt*, "all together, at one rush."

^b The Greek *διὰ γλαυκίου*, "made from glaucion."

^c See Book X § 40.

fluxes that fall in streams from the whole eye.^a There is made from it a salve called by physicians *diaglauciu*.^b It also restores a rich supply of milk if this fails. When taken for this purpose, water is the medium.

LX. Glycyside, called by some paeonia or pentorobon, has a stem two spans high; two or three others go with it. This stem is reddish, with bark like that of bay; the leaves resemble those of isatis, only more fleshy, rounder, and smaller. The seed is in pods, with some grains red, some black. There are however two kinds of the plant. The one to the roots of which are attached about six or eight rather long bulbs like acorns is regarded as female. The male has no more bulbs, since it is supported only by a single root, a span deep, white, and astringent to the taste. The leaves of the female smell of myrrh, and are closer together. The plants grow in woods. It is said that they should be dug up by night, because to do so in the daytime is dangerous, for the woodpecker called "bird of Mars"^c assaults the eyes. That there is a danger, however, of prolapsus of the anus when a root is being dug up, I hold to be a very fraudulent lie, calculated to exaggerate the real facts. These plants are of manifold use. The red grains check red menstrual discharge, about fifteen being taken in dark-red wine. The black grains are healing to the uterus, the same number being taken in raisin or ordinary wine. The root in wine relieves all pains of the belly, opens the bowels, cures opisthotonic tetanus, jaundice, and complaints of the kidneys and bladder; for the trachea and the stomach however a decoction in wine is used, which also acts astringently on the bowels. It is eaten too as a food, but as a

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87 medendo quattuor drachmae satis sunt. grana nigra auxiliantur et suppressionibus nocturnis in vino pota quo dictum est numero, stomachicis vero et rosionibus et esse eam et inlinere prodest. suppurationes quoque discutiuntur, recentes nigro semine, veteres rubro. utrumque auxiliatur a serpente percussis et pueris contra calculos incipiente¹ stranguria.

88 LXI. Gnaphalium aliqui chamaezelon vocant, cuius foliis albis mollibusque pro tomento utuntur, sane et similia sunt. datur in vino austero ad dysinteriam, ventris solutiones mensesque mulierum sistit. infunditur autem tenesmo. inlinitur et putrescentibus ulcerum.

89 LXII. Gallidragam vocat Xenocrates leucacantho similem, palustrem et spinosam, caule ferulaceo alto, cui summo capite inhaereat simile ovo. in hoc crescente aestate vermiculos nasci tradit quos pyxide conditos adalligari cum pane brachio ab ea parte qua dens doleat, mireque ilico dolorem tolli. valere non diutius anno et ita si terram non adtigerint.

90 LXIII. Holcus in saxis nascitur siccis. aristas habet in cacumine, tenui culmo, quale hordeum restibile. haec circa caput alligata vel circa lacertum educit e corpore aristas. quidam ob id aristida vocant.

LXIV. Hyoseris intubo similis, sed minor et tactu asperior, vulneribus contusa praeclare medetur.

¹ incipiente *codd.* : incipientes *Mayhoff*, qui confert *Diosc. III 140 ἀρχὰς λιθιάσεως παραιτοῦνται*.

^a The emendation of *Mayhoff*, though easy and ingenious, is not necessary, for the passage in *Dioscorides* is rather vague and makes no mention of strangury.

medicine four drachmae are enough. The black grains, taken in wine to the number mentioned, also prevent nightmares, while for stomach ache and for gnawing colic it is beneficial both to eat them and to apply them locally. Suppurations too are dispersed, recent by the black seed and old by the red. Both kinds are good for snake bites, and to cure stone in children when strangury is beginning.^a

LXI. *Gnaphalium* is called by some chamaezelon; *Gnaphalium*. its pale, soft leaves are used as flock; the two indeed are similar. It is given in a dry wine for dysentery, arrests fluxes of the belly and excessive menstruation, is injected for tenesmus and applied to festering ulcers.

LXII. Xenocrates calls gallidraga a prickly marsh-plant like leucacanthus, with a tall stem like fennel- *Gallidraga*. giant, on the top of which is perched an egg-shaped ball. In this, he says, as summer advances, are bred maggots, which are kept in a box and attached with bread, as an amulet, to the arm on the same side as an aching tooth, and the pain disappears at once in a wonderful manner. These maggots, he says, retain their potency for not more than a year, and then only if they have not touched the ground.

LXIII. *Holcus* grows on dry rocks. The plant is *Holcus*. like barley that has grown again after cutting, with ears at the top of a slender straw. Tied round the head or round the arm this plant^b draws ears (*aristas*) from the flesh, for which reason some call it aristis.

LXIV. *Hyoseris* is like endive, but smaller and *Hyoseris*. rougher to the touch; crushed it is a splendid remedy for wounds.

^b *Haec* might be *arista*.

- 91 LXV. Holosteon sine durtia est herba ex adverso appellata a Graecis, sicut fel dulce, radice tenui¹ usque in capillamenti speciem, longitudine quattuor digitorum, ceu gramen foliis angustis, adstringens gustu. nascitur in collibus terrenis. usus eius ad vulsa, rupta in vino potae. et vulnera quoque conglutinat, nam et carnes, dum coquuntur, addita.
- 92 LXVI. Hippophaeston nascitur in spinis ex quibus fiunt aënae fulloniae, sine cauliculo, sine flore, capitulis tantum inanibus et foliis parvis multis, herbacei coloris, radículas habens² albas, molles. sucus earum exprimitur aestate ad solvendam alvum tribus obolis, maxime in comitialibus morbis et tremulis, hydropicis, contra vertigines, orthopnoeas, paralysis incipientes.
- 93 LXVII. Hypoglossa folia habet figura silvestris myrti, concava,³ spinosa et in his ceu linguas folia parva exeuntia e⁴ foliis. capitis dolores corona ex his inposita minuit.

LXVIII. Hypecoön in segetibus nascitur foliis rutae. natura eius eadem quae papaveris suco.

¹ radice tenui *ego, qui Hermolai Barbari tenui radice inverte: radice tenuis Mayhoff: tenuis codd., Detlefsen. Dioscorides (IV 11)ρίζαν δὲ σφόδρα λεπτήν ὡς τρίχα.*

² habens *vulg. Detlefsen: om. codd.: radiculæ albae Mayhoff.*

³ concava *codd., vulg.: coma e Dioscoride Mayhoff, qui etiam comantia coni.*

⁴ folia parva exeuntia e foliis *coni. Mayhoff: folio parvo exeunte de foliis codd., Detlefsen, Mayhoff in textu.*

^a A strange phrase, which should mean: "grows among etc."

^b The sense is the same whichever reading is adopted.

LXV. *Holosteon* (all-bone) is a plant with nothing hard about it, the name being an antiphrasis coined by the Greeks, just as they call gall sweet. Its root is so slender as to look like hair. Four fingers long, the plant has narrow leaves like grass and an astringent taste, growing on hills with deep soil. Taken in wine for sprains and ruptures it also closes wounds, for it even fastens together pieces of meat when boiled with them. *Holosteon.*

LXVI. *Hippophaeston* is to be found ^a among the thorns out of which fullers' pots are made up, having no stem, no blossom, but only little, hollow heads and many small leaves of the colour of grass. Its little roots are whitish and soft.^b Their juice is extracted in summer; the dose to open the bowels is three oboli, being used especially in epilepsy, palsy, dropsy, and to treat giddiness, orthopnoea, and incipient paralysis. *Hippophaestum.*

LXVII. *Hypoglossa* has leaves shaped like those of wild myrtle, concave, prickly, and on them as it were tongues, small leaves growing out of the leaves proper. A chaplet made from these and placed on the head relieves headache.^c *Hypoglossa.*

LXVIII. *Hypecoön* grows in cornfields and has leaves like those of rue. Its properties are those of poppy juice. *Hypecoön.*

^c Dioscorides has (IV 129): θαμνίσκος ἐστὶ μυρσίνη ἀγρία καὶ λεπτῇ ἔχων τὰ φύλλα ὅμοια, κόμην δὲ ἀκανθώδη καὶ ἐπ' ἄκρου οἰονεὶ γλωττίδας, παραφύσεις μικρὰς παρὰ τοῖς φύλλοις. δοκεῖ δὲ ἡ κόμη περίαμμα εἶναι χρήσιμον κεφαλαγοῦσι. The reason why Mayhoff emended *concava* to *coma* is clear, but the Greek and the Latin, although very alike, have some differences, the greatest perhaps being Pliny's *corona* where the Greek has *κόμη*. The Latin *coma*, and also *κόμη*, are difficult words, and there is no English word that will serve as a translation on every occasion. Some remarks on them will be found on pp. 482–483.

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LXIX. *Idaeae herbae folia sunt quae oxymyrsines. adhaerent iis velut pampini, in quibus flos. ipsa alvum mensesque et omnem abundantiam sanguinis sistit. spissandi cohibendique naturam habet.*¹

94 LXX. *Isopyron aliqui phaselion vocant, quoniam folium quod est aneso simile in passeoli pampinos torquetur. capitula sunt in summo caule tenuia, plena seminis melanthi, contra tussim et cetera pectoris vitia cum melle aut aqua mulsa, item iocineri utilissima.*²

95 LXXI. *Lathyris folia habet multa lactucae similia, tenuiora, germina multa, in quibus semen tuniculis continetur ut capparis, quae cum inaruerit, eximuntur grana piperis magnitudine, candida, dulcia, facilia purgatu. haec vicena in aqua pura aut mulsa pota hydropicos sanant. trahunt et bilem. qui vehementius purgari volunt cum folliculis ipsis sumunt ea, nam stomachum laedunt, itaque inventum est ut cum pisce aut iure gallinacei sumerentur.*

96 LXXII. *Leontopetalon alii rapadion vocant, folio brassicae, caule semipedali. alae plures,*³ *semen in*

¹ habet *vulg. Mayhoff emendat* : sanguinis sistit spissandi cohibendique natura.

² utilissima d(?) *vulg., Detlefsen* : utilissimo VRE : utilissimi *Mayhoff*.

³ plures *Sillig* : mirae *Detlefsen* : numerosae *Mayhoff* : nures E : nure VR.

^a Or, "without addition."

^b Or, "styptic."

LXIX. The plant of Ida has leaves like those of *Idaea herba*. oxymyrsine, and to them adhere as it were tendrils, which bear the blossom. The plant itself^a checks looseness of the bowels, menstruation, and all excessive bleeding, as it has astringent^b and repressive properties.

LXX. Isopyron is called by some phaselion, *Isopyron*. because its leaf, which resembles that of anise, twists itself into the shape of the tendrils of the passeolus.^c At the top of the stem grow little heads, slender,^d full of seed like that of melanthium, and very efficacious, when taken with honey or hydromel, for cough, other chest complaints, and also those of the liver.

LXXI. Lathyris has many leaves like those of *Lathyris*. lettuce, but slighter, and many buds, in which the seed is enclosed in envelopes as is that of the caper. When the buds are dry,^e the seeds, of the size of a peppercorn, are taken out; they are white, sweet, and easily shelled. Twenty of them in fresh water or hydromel cure dropsy, and also draw away bile. Those who wish for a more violent purge take the pods themselves with the seeds, but^f since they injure the stomach the plan has been devised of taking them with fish or chicken broth.

LXXII. Leontopetalon, called by some rapadion, *Leontopetalon*. has leaves like cabbage leaves and a stem half a foot long. There are several side branches, and at the

^c *Phaseolus* and *passeolus* are different forms of the same name.

^d Perhaps "slender" should be omitted, as *tenuia* may merely strengthen the diminutive.

^e Or, "have withered."

^f A clear instance of *nam* = but.

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cacumine in siliquis ciceris modo, radix rapo¹ similis, grandis, nigra. nascitur in arvis. radix adversatur omnibus² serpentium generibus ex vino pota. nec alia res celerius proficit. datur et ischiadicis.

97 LXXIII. Lycapsos longioribus quam lactucae foliis crassioribusque, caule longo, hirsutis³ adgnatis multis, cubitalibus, flore parvo, purpureo. nascitur in campestribus. inlinitur cum farina hordeacea igni sacro, sudores in febribus movet suco aquae calidae admixto.

98 LXXIV. Inter omnes herbas lithospermo nihil est mirabilius. aliqui exonychon vocant, alii Dios pyron, alii Heracleus. herba quincuncialis fere, foliis duplo maioribus quam rutae, ramulis surculosis, crassitudine iunci. gerit iuxta folia singulas veluti barbulas et in earum cacuminibus lapillos candore et rotunditate margaritarum, magnitudine ciceris, duritia vero lapidea. ipsi qua pediculis adhaereant cavernulas
99 habent et intus semen. nascitur et in Italia, sed laudatissimum in Creta, nec quicquam inter herbas maiore equidem miraculo aspexi. tantus est decor velut aurificum arte alternis inter folia candicantibus margaritis, tam exquisita difficultas lapidis ex herba nascentis. iacere atque humi serpere auctores tradunt; ego volsam, non haerentem vidi. his

¹ rapo r *Gelenius*, *Mayhoff*: rapa E: napo aliquot *codd.*, *Detlefsen*.

² omnibus *Mayhoff*: omnium *codd.*, *Detlefsen*. Ego coni. omnium serpentium ictibus.

³ caule longo, hirsutis *ego*: caulem longum hirsutum habet *Detlefsen*: cauli longo hirsutis *Mayhoff*: caulem longum hirsutis *codd.*

^a Dioscorides (III 96): μασχάλας πλείστας ἐφ' ὧν ἄκρων λαβοὶ ὅμοιοι ἐρεβίνθοις. Hence my rendering of *alae*.

ends, in pods like those of chick-peas,^a is the seed. The root is like a turnip, large and blackish. It grows on cultivated ground. Taken in wine the root neutralises the poison of serpents of every kind,^b and no other remedy acts more quickly. It is also given to sufferers from sciatica.

LXXIII. *Lycapsos* has longer and coarser leaves than those of lettuce, a long stem, with many subsidiary others, hairy and a cubit long, and a small, purple flower. It grows in flat, meadowy land. With barley meal it makes a local application for erysipelas. The juice with hot water added promotes perspiration in fevers. *Lycapsus.*

LXXIV. Among all plants nothing is more wonderful than lithospermum, called by some exonychon, by others "Juppiter's corn," and by others "corn of Hercules." The plant is about five inches high, with leaves twice as big as those of rue, and ligneous little branches of the thickness of a rush. Near the leaves it grows as it were little beards, which are single, and on their tops little stones, white and round as pearls, as big as a chick-pea but as hard as a stone. Where they are attached to pedicels these jewels have little holes, in which is the seed. The plant grows indeed in Italy, but the most highly valued in Crete, and I have never seen anything among plants that filled me with greater wonder. So charming the adornment that one might think that the jeweller's art had arranged gleaming white pearls symmetrically among the leaves; so elegantly solved is the problem of causing a gem to grow from a plant! The authorities say that it lies and spreads over the ground; I have seen it only when gathered, not when so growing. It is *Lithospermum.*

^b My conjecture: "of the bites of all serpents."

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lapillis drachmae pondere potis in vino albo calculos frangi pellique constat et stranguriam discuti. neque in alia herbarum fides est certior,¹ ad quam medicinam nata sit, est autem ² eius species ut etiam sine auctore visu statim nosci possit.

- 100 LXXV. Lapis vulgaris iuxta flumina fert muscum siccum, canum. hic fricatur altero lapide addita hominis saliva, illo lapide tangitur inpetigo. qui tangit dicit :

φεύγετε καθαρίδες, λύκος ἄγριος αἷμα διώκει.

- 101 LXXVI. Limeum herba appellatur a Gallis qua sagittas in venatu tingunt medicamento, quod venenum cervarium vocant. ex hac in tres modios salivati additur quantum in unam sagittam addi solet, ita offa demittitur boum faucibus in morbis. alligari postea ad praesepia oportet, donec purgentur—insanire enim solent—si sudor insequitur, aqua frigida perfundi.

- 102 LXXVII. Leuce mercurialis³ similis nomen ex causa accepit, per medium folium candida linea transcurrente, quare mesoleucion quidam vocant. sucus eius fistulas sanat, ipsa contrita carcinomata. fortassis eadem sit quae leucas appellatur, contra marina omnia venena efficax. speciem eius auctores

¹ certior *Mayhoff* : aequa *Dellefsen* : visu statim *codd.*

² est autem *vulg.*, *Dellefsen* : talis autem *Mayhoff* : autem VRE.

³ *Mercurialis codd.*, *Ianus*, *Dellefsen* : *Mercuriali vulg.*, *Mayhoff*.

^a For *cantheris* see Book XVIII § 152.

^b *Mayhoff* thinks that *tritici*, or some such word, is understood with *salivati*. But this is not necessary.

indisputable that a drachma by weight of these jewels taken in white wine breaks up and brings away stone, and cures strangury. There is no other plant the medicinal property of which can be recognised with greater confidence; its very appearance is such that at once by a glance, even without being told, people can become aware of this property.

LXXV. On ordinary stones near rivers grows a dry, hoary moss. One of them is rubbed with another one smeared with human spittle; with the latter stone is touched eczema, and he who touches says:

“Begone, cantharides,^a for a savage wolf seeks your blood.”

LXXVI. Limeum is the name given by the Gauls *Limeum.* to a plant that they use to make a drug, called by them deer poison, with which when hunting they poison their arrows. As much of the plant as is usually used for one arrow is mixed with three bushels of saliva stimulant,^b and when cattle are sick this mash is forced down their throats. Afterwards they must be tied to their stalls until they are purged—for they usually go wild—and if sweating ensues cold water should be poured over them.

LXXVII. Leuce, a plant like mercurialis, has a *Leuce.* reason for the name it bears, because a white line runs down the middle of the leaves, which is why some call it mesoleucion.^c Its juice heals fistulas; crushed, the plant itself cures malignant ulcers. Perhaps it is the same as the plant called leucas, which is a remedy for the poison of all sea creatures. My authorities do not report its appearance; they

^c “White down the middle.”

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non tradunt, nec aliud quam silvestrem latioribus foliis esse, efficaciorē hanc¹ semine acriore.

103 LXXVIII. Leucographis qualis esset scriptum non repperi, quod eo magis miror, quoniam utilis proditur sanguinem excreantibus tribus obolis cum croco, item coeliacis, trita ex aqua et adposita profluvio feminarum, oculorum quoque medicamentis et ex-
plendis ulceribus quae fiant in teneris partibus.

104 LXXIX. Medion folia habet seridis² sativae, caulem tripedalem et in eo florem grandem, purpureum, rotundum, semine minuto, radicem semipedalem. in saxis opacis nascitur. radix drachmis duabus cum melle menses feminarum sistit ecligmate per aliquot dies sumpto. semen quoque in vino contra abundantiam feminarum datur.

105 LXXX. Myosota sive myosotis, levis herba caulibus pluribus ab una radice, aliquatenus rubentibus, concavis, ab imo foliis angustis, oblongis, dorso acuto, nigris, per intervalla adsidue geminatis, tenuibus cauliculis ex alis prodeuntibus, flore caeruleo. radix digitali crassitudine multis capillamentis fimbriata. vis ei †septica†³ et exulceratrix, ideoque aegilopas

¹ hanc *codd.*, Mayhoff: ac Ulrichs, Detlefsen.

² seridis e Diosc. (IV 18) Hermolaus Barbarus, Detlefsen: iridis Mayhoff: hiridis E.

³ septica *codd.*: ego smectica *coni.*: caustica *coll.* § 112 Warmington.

^a With Mayhoff's reading, "iris."

^b Dioscorides on the contrary says (IV 18): ἄγχι ἔμμηνα.

^c Mayhoff for *levis* suggests *tenuis*, "slender."

^d Mayhoff punctuates *concavis ab imo*, and suggests that *ab imo* should be transposed to come after *rubentibus*.

^e Littré translates this puzzling sentence thus: "La qualité de cette racine est septique et exulcérente; ainsi guérit-elle aegilops." But how can a "septic and ulcerating" application cure a lacrimal fistula? Something or other must

only say that the wild plant has the broader leaves, that this is the more efficacious, and has the more pungent seed.

LXXVIII. A description of *leucographis* I have *Leucographis.* nowhere found in writing. I am the more surprised at this because in three-oboli doses with saffron it is considered useful for haemoptysis, and also for the coeliac disease; beaten up in water and applied as a pessary for excessive menstruation; useful too as an ingredient of eye salves, and for filling up ulcers that form on tender parts of the body.

LXXIX. *Medion* has leaves like those of cultivated *Medion.* *seris*^a; the stem is three feet long, on which is a large, purple, round flower, bearing tiny seeds; the root is half a foot long. The plant grows on shaded rocks. The root checks excessive menstruation, two-drachma doses, with honey, being taken in the form of an electuary for a few successive days. For the same purpose the seed too is given in wine.^b

LXXX. *Myosota* or *myosotis* is a smooth^c plant *Myosota.* with several stems growing from one root, these being red to a certain extent and hollow; narrow leaves grow at the bottom,^d longish, with a spine along the back, dark, carefully arranged in pairs at regular intervals. There are slender stalks growing from the axils, and the blossom is blue. The root, of the thickness of a finger, is fringed with many filaments like hairs. It has †septic and ulcerating† properties,^e and so be wrong. Unfortunately Dioscorides (II 183) is of no help here, for although he mentions the cure, he says nothing about the properties of the root: ἡ δὲ ῥίζα καταπλασθεῖσα αἰγιλώπια ἰᾶται.

I suggest that *exulceratrix* means, not "ulcerating," but "clearing away ulcers," just as *exulcerare corpus* in XXIII § 22 means "free the flesh from sores." Cf. *tussim exasperant*

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sanat. tradunt Aegypti, mensis quem Thoti vocant die xxviii fere in Augustum mensem incurrente si quis huius herbae suco inungatur mane priusquam loquatur, non lippiturum eo anno.

- 106 LXXXI. Myagros herba ferulacea est foliis similis rubiae, tripedania. semen oleosum, quod et fit ex eo. medetur oris ulceribus perunctis hoc suco.

LXXXII. Herba quae vocatur nyma, tribus foliis longis intubaccis, inlita cicatrices ad colorem reducit.

- 107 LXXXIII. Natrix vocatur herba cuius radix evulsa virus hirci redolet. hac in Piceno feminis abigunt quos mira persuasione Fatuos vocant, ego species lymphantium hoc modo animorum esse crediderim quae tali medicamento iuventur.

- 108 LXXXIV. Odontitis inter feni genera est, cauliculis densis ab eadem radice, geniculatis, triangulis, nigris. in geniculis folia parva habet, longiora tamen quam polygonum, semen in alis hordeo simile, florem

(XXIII § 97), "takes away roughness from a cough." Then *septica* may be a mistake, either of Pliny or of a scribe, for *smectica*. In XXX § 29 *septica* is actually found as a variant of the correct reading *smectica* (vi). The translation would then be: "the root is cleansing, and clears away sores, and so it heals lacrimal fistulas." So also *exulcerat* in § 112.

An old reading *stiptica* (i.e., *styptica*, "styptic") is mentioned by Dalecamp, and may be right. At any rate it shows that the passage puzzled the old commentators. As Detlefsen and Mayhoff agree in their text, and as Littré raises no doubts, I have left text and translation within daggers.

Professor Andrews thinks that the text is correct, referring to the drastic treatment of eye-fistulas in early times.

^a I.e., for the next twelve months.

heals laecrial fistulas. The Egyptians say that if, on the twenty-eighth day of the month they call thoti (a day generally falling in our August), you rub yourself over in the morning with the juice of this plant before speaking to anyone, you will not in that year ^a suffer from ophthalmia.

LXXXI. Myagros is a plant like fennel-giant, with *Myagros.* leaves like those of madder; it is three feet high. The seed is oily, and from it is extracted an oil. This juice, used as liniment, is good treatment for an ulcerated mouth.

LXXXII. The plant called nyma, with its three *Nyma.* long leaves like those of endive, makes a liniment that restores the colour of a skin disfigured by sears.

LXXXIII. Natrix is the name of a plant the root of *Natrix.* which, when pulled up, gives out the foul smell of he-goats. In Picenum they use this plant to drive away from women what are, with a strange credulity, called Fatui.^b I myself should believe that it is the hallucination of minds delirious in this way that is helped by such a drug.^c

LXXXIV. Odontitis is classed as a hay with close- *Odontitis.* set stalks growing from the same root, jointed, triangular and dark. At the joints it has small leaves, longer however than those of polygonum, seed like barley in the axils, and a tiny, bright red flower. It

^b *Fatui*, "clowns," were kept by some Romans. Here it means "night-demons," referring to some kind of nightmare. The Delphin editor has: *qui viros aggredi existimati sunt, ii Fauni, qui mulieres, Fatui dici consueverunt.*

^c I take *species* to mean "visions." Literally, "those who need such a remedy are the visions of minds suffering from such hallucinations." Professor Andrews thinks that this cannot be so, as it is the *species* that are said to be "relieved", according to my construe.

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purpureum, pusillum. nascitur in pratis. decoctum cauliculorum eius in vino austero quantum manus capiat dentium dolori medetur ita ut contineatur ore.

- 109 LXXXV. Othonna in Syria nascitur, similis erucæ, perforatis crebro foliis, flore croci,¹ quare quidam anemonem vocaverunt. sucus eius oculorum medicamentis convenit. mordet enim leniter et calfacit adstringitque siccando; purgat cicatrices et nubeculas et quicquid obstat. quidam tradunt lavari atque ita siccata digerere in pastillos.

- 110 LXXXVI. Onosma longa folia habet fere ad tres digitos, in terra iacentia, ad similitudinem anchusæ,² sine caule, sine flore, sine semine. prægnas, si edit eam aut supergradiatur, abortum facere dicitur.

LXXXVII. Onoprædon si comederunt, asini crepitus reddere dicuntur. trahit urinas et menses, alvum sistit, suppurationes et collectiones discutit.

- 111 LXXXVIII. Osyris ramulos fert nigros, tenues, lentos, et in his folia nigra ceu lini semenque in ramulis nigrum initio, dein colore mutato rubescens. smegmata mulieribus faciunt ex his. radicum decoctum potu sanat arquatos. eadem priusquam maturescat semen concisæ et sole siccatae alvum sistunt. post maturitatem vero collectæ et in sorbitione decoctæ rheumatismis ventris medentur et per se tritæ ex aqua cælesti bibuntur.

¹ croci e *Dioscoridæ vulg.*: cocci VRdf *Dettefsen*.

² *Post anchusæ in codd. incisis (VdE) aut incissis (R): incisa vulg.: ego delevi (ex anchusæ ortum?). anchusæ . . . similis sive caule, sive flore, sive semine. Mayhoff.*

grows in meadows. A decoction of its stalks, a handful in a dry wine, is a cure for toothache, but it must be kept in the mouth.

LXXXV. *Othonna* grows in Syria. It is like *Othonna*. *eruca*, has leaves full of holes and a saffron flower. This is why some have called it *anemone*. Its juice is a suitable ingredient of eye salves, for it is slightly biting, warming, and astringent, because of its drying nature; it clears away scars, films and all obstructions. Some say that it is washed, and then, after drying, worked up into lozenges.

LXXXVI. *Onosma* has long leaves up to about *Onosma*. three fingers in length, lying on the ground like those of *anchusa*. It has no stem, no blossom and no seed.^a If a woman with child should eat it or step over it, she is said to miscarry.

LXXXVII. Asses are said, if they have eaten *Onopradon*. *onopradon*, to break wind. It is diuretic and an emmenagogue, checks looseness of the bowels, and disperses suppurations and gatherings.

LXXXVIII. *Osyris* bears dark twigs, slender and *Osyris*. pliant, on which are dark leaves like those of flax. The seed on the twigs is black to begin with, and then the colour changes to red. From them are made cosmetics for women. A decoction of the roots taken by the mouth cures jaundice. These roots also, if cut off before the seed ripens and dried in the sun, check looseness of the bowels; but, if dug up after the ripening and boiled down in gruel, they are good treatment for catarrhs of the belly, and by themselves they are beaten up and taken in rain water.

^a Dioscorides III 131: ἐπὶ γῆς κατεστρωμένα ἐμφερέστατα τῆς ἀγχοῦσης. ἔστι δὲ ἄκαυλος καὶ ἄκαρπος καὶ ἀνανθής. So there is no need to alter, with Mayhoff, *sine* to *sive*.

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112 LXXXIX. Oxys folia terna habet. datur ad stomachum dissolutum. edunt et qui enterocelen habent.

XC. Polyanthemum, quam quidam batrachion appellant, caustica vi exulcerat cicatrices et ad colorem reducit, eademque vitiliginis concorporat.

113 XCI. Polygonum Graeci vocant quam nos sanguinariam. non attollitur a terra, foliis rutae, similis graminis. sucus eius infusus naribus supprimit sanguinem et potus cum vino cuiuslibet partis profluvium excreationesque cruentas inhibet. qui plura genera polygoni faciunt hanc marem intellegi volunt appellarique a multitudine seminis aut densitate fruticis, alii polygonaton a frequentia geniculorum, alii thalattiada, alii carcinothron, alii clema, multi myrtopetalum. nec non inveniuntur qui hanc feminam esse dicant, marem autem maiorem minusque nigram et geniculis densiorem, semine sub

114 omnibus foliis turgescens.¹ quocumque haec modo se habent, vis earum est spissare ac refrigerare. semine alvum solvunt, largius sumpto urinam cient, rheumatismos cohibent, qui si non fuere, non prosunt. stomachi fervori folia inponuntur, vesicae dolori inlinuntur et ignibus sacris. sucus et auribus purulentis instillatur et oculorum dolori. per se dabatur

¹ turgescens *codd.*, *vulg.*, *Dellefsen*: turgescens *Mayhoff* *Dal. secutus*.

^a The Delphin editor says: *reddat reliquo corpori parem*. On *exulcerat* see page 453, note.

^b Mayhoff suggests that *similis graminis* should come after *terra*: "resembles grass in not rising from the ground."

^c The name means "having much seed."

^d Or, "brace." Dioscorides IV 4: δύναμιν δὲ ἔχει στυπτικὴν καὶ ψυκτικὴν.

LXXXIX. Oxy has three leaves. It is given for a *Oxys.* relaxed stomach, and is also eaten by sufferers from intestinal hernia.

XC. Polyanthemum, called by some batrachion, *Polygonum,* with its caustic property clears away scars and brings *num.* back a healthy colour.^a It also effaces psoriasis.

XCI. Polygonum is the name given by the Greeks *Polygonum,* to the plant we Romans call sanguinaria. It does not *four kinds.* rise from the ground, has leaves like those of rue, and resembles grass.^b Its juice poured into the nostrils checks epistaxis, and taken with wine stays haemorrhage in any part of the body and the spitting of blood. Those who hold that there are several kinds of polygonum would have this to be considered the male plant, and to be so named because of the great number of its seeds,^c or from its being a shrub with close-packed branches. Some call it polygonaton from its many joints, others thalattias or carcinothron or clema, many myrtopetalum. There are also to be found some who say that this kind is the female, and that the male is larger, less dark, with the joints closer together, and swelling with seed under all the leaves. However this may be, the property of these plants is to be astringent^d and to cool. Their seed relaxes the bowels, and taken in larger doses is diuretic; it checks catarrhs, and if these have not occurred it is of no use.^e The leaves are applied to a heated stomach, and also used to make liniment for a painful bladder and for erysipelas. The juice is also dropped into purulent ears and painful eyes. It used also to be given by itself in

^e *I.e.*, the seed checks catarrhs, but is not a preventive. There is nothing of this in Dioscorides, who has merely: ἀρμόζει τοῖς κατὰ κοιλίαν ρεύμασι.

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- et in febribus ante accessiones duobus cyathis in
 tertianis quartanisque praecipue, item choleris,
 115 dysintericis et in solutione stomachi. tertium genus
 orion vocant in montibus nascens, harundini tenerae
 simile, uno caule, densis geniculis et in se infarctis,
 foliis autem piceae, radice supervacuae, inefficacius
 116 quam superiora, peculiare ischiadicis. quartum genus
 silvestre appellatur, paene arboris modo frutex,
 radice lignosa, stirpe cedri rubicunda, ramis sparti
 binum palmorum, nigris geniculorum ternis quater-
 nisque articulis. huic quoque spissandi natura,
 sapor mali cotonei. decoquitur in aqua ad tertias aut
 aridi farina inspergitur et oris ulceribus et adtrit
 partibus. propter gingivarum vero vitia ipsa com-
 117 manducatur. nomas sistit omniaque quae serpunt
 aut difficilem cicatricem habent, privatim vero sanat a
 nive facta ulcera. herbarii et ad anginas utuntur illa
 et in capitis dolore coronam ex ea inponunt et contra
 epiphoras collo circumdant. in tertianis quidam¹
 sinistra manu evulsam adalligant, adeo contra pro-
 fluvia sanguinis, nec ullam magis aridam quam poly-
 gonum servant.
- 118 XCII. Paneratum aliqui scillam pusillam appellare
 malunt, foliis albi lilii longioribus crassioribusque,
 radice bulbi magni, colore rufo. alvum solvit suco
 cum farina ervi sumpto, ulcera purgat. hydropicis,
 splenicis cum melle datur. alii decocunt eam donec

¹ quidam *codd. multi* : quidem V *vulg.*, *Mayhoff*.

^a Dioscorides IV 5 : γόνατα συνεχῇ ἔχον ἐγκείμενα ἀλλήλοις
 ὥσπερ σάλπιγγος.

^b Or "only."

^c Possibly, "bracing."

^d Or, with *quidem*, "indeed."

doses of two cyathi, before the paroxysms of agues, especially tertian and quartan, also for cholera, dysentery and a relaxed stomach. The third kind, called orion, grows on mountains and is like a tender reed. It has one stem with knots close together and fitted one into another,^a leaves resembling those of the pitch pine, and a root of no medicinal use. This kind is less efficacious than those already mentioned, and used especially ^b for sciatica. The fourth kind is called wild polygonum, a shrub that is almost a tree; it has a ligneous root, a red trunk like that of the cedar, branches like those of spartum, two spans long, and with three or four dark, knotted joints. This kind too is of an astringent ^c nature, and tastes like a quince. It is boiled down in water to one third, or dried and powdered for sprinkling on ulcerations of the mouth and excoriated bruises, but for sore gums the plant itself is chewed. It arrests corrosive ulcers, and all those that spread or are slow to heal; for frost-bite however it is specific. Herbalists also use it for quinsy; for headache they make a chaplet of it which they place on the head; while to cure eye fluxes they put one round the neck. For tertian ague some ^d pluck it with the left hand and attach it as an amulet, and for haemorrhage also. There is no other plant that they keep in a dry state more than they do polygonum.

XCII. *Pancratium* some prefer to call "little squill." It has leaves resembling those of the white lily, but longer and thicker, and a root like a large, red bulb. Its juice taken with vetch flour relaxes the bowels and cleans ^e ulcers. With honey it is given for dropsy and affections of the spleen. Others

^e Or, "clears up."

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aqua dulcis fiat, eaque effusa radicem terentes digerunt in pastillos sole siccatos et postea utuntur ad capitis ulcera et cetera quae repurganda sint, item ad tussim quantum tribus digitis adprehenderint in vino dantes, et ad lateris dolores aut peripleumonicis ecligmate. dant et propter ischiada in vino bibendam et propter tormina mensesque ciendos.

- 119 XCIII. Peplis, quam aliqui sycen, alii meconion, alii mecona aphrode vocant, ex una radice tenui fruticat foliis rutae paulo latioribus, semine sub foliis rotundo, minore quam candidi papaveris.¹ inter vites fere colligitur messibus siccaturque cum fructu suo subiectis in quae excidat. hoc poto alvus solvitur, bilis ac pituita detrahitur. media potio est acetabuli mensura in aquae mulsae heminis tribus. et cibis inspergitur obsoniisque ad molliendam alvum.

- 120 XCIV. Periclymenon fruticat et ipsa ex intervallo duo folia habens subcandida, mollia. in cacumine autem semen inter folia durum et quod difficile vellatur. nascitur in arvis ac saepibus circumvolvens se adminiculis quibuscumque. semen eius in umbra

¹ minore quam candidi papaveris *Hermolaus Barbarus*: minor candido papavere *Dettefsen post Urlichs*: semen est sub foliis, rotundum, minus candido papavere *Mayhoff*: minus d *vulg.*: minos VR: papaver VR: papaveris d(?) *vulg.*

^a Dioscorides IV 14: θαμνίσκος . . . ἔχων ἐκ διαστήματος φυλλάρια περιειληφότα αὐτόν, ὑπόλευκα, κισσοειδῆ καὶ παρὰ τὰ φύλλα ἐκβλαστήσεις, ἐφ' ὧν καρπὸς κισσῶ παραπλήσιος, οἶονεὶ ἐπικείμενος τῷ φύλλῳ, σκληρὸς καὶ δυσαπόσπαστος. "*Periclymenon fruticat* seems to mean 'Periclymenon forms a shrub.' This fits honeysuckle, *Lonicera etrusca*, to which the name is usually referred. Pliny is inclined to treat any plant name as feminine, regardless of what it is, probably with *herba* in his mind. *Ipsa* therefore means 'this plant.' As I study

boil it down until the water becomes sweet, pour this off, pound the root, and work it into lozenges, which they dry in the sun and use afterwards for sores on the head and all other ailments that call for a detergent. Moreover, they give in wine a three-finger pinch for cough, and an electuary made of it for pleurisy or pneumonia. They also give it to be taken in wine for sciatica, for colic, and as an emmenagogue.

XCIII. *Peplis*, called by some *syce*, by others *meconion* or *mecon aphrodes*, grows into a shrub from one slender root, and has leaves like those of rue but a little broader. Under the leaves is a round seed, smaller than that of the white poppy. It is generally gathered among vines at harvest time, and is dried with its seed after a vessel has been placed beneath to catch this. Taken in drink it relaxes the bowels, bringing away bile and phlegm. A moderate dose is an acetabulum in three heminae of hydromel. It is sprinkled over foods and relishes to loosen the bowels.

XCIV. *Periclymenon* too is a plant which grows into a shrub, having after an interval two leaves which are whitish and soft. And at the top among the leaves is a seed which is hard, and difficult to pluck.^a The plant grows in cultivated fields and in hedges, climbing round supports of any kind. Its seed is dried in the shade, pounded, and worked up

this passage, it seems to me that Pliny in condensing probably omitted a description of the flower-head after *fruticat*. There is one odd feature of the genus *Lonicera*. Quite a few of the species have a flower growing on an axillary bracted peduncle. A little below the flower-head (*ex intervallo*) there are two pairs of these bracts, so conjoined that each seems to be a single leaf. This is a fairly distinctive feature, one likely to be noted for purposes of recognition." (A.C.A.)

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siccatum tunditur et in pastillos digeritur. hi resoluti dantur in vini albi cyathis ternis tricenis diebus ad lienem, eumque urina cruentata aut per alvum absumit, quod intellegitur a decimo statim die. urinam cient et folia decocta, quae et orthopnoicis prosunt. partum quoque adjuvant secundasque pellunt pota simili modo.

- 121 XCV. Peleciton in segetibus diximus nasci, fruticosam cauliculis, foliis ciceris. semen in siliquis fert corniculorum modo aduncis ternis quaternisque, quale git novimus, amarum, stomacho utile. additur in antidota.

XCVI. Polygala palmi altitudinem inplet, in caule summo foliis lenticulae, gustu adstricto, quae pota lactis abundantiam facit.

- 122 XCVII. Poterion aut, ut alii vocant, phrynon vel neuras large fruticat, spinis retorrida, lanugine spissa, foliis parvis, rotundis, ramulis longis, mollibus, lentis, tenuibus, flore longo, herbacei coloris, seminis nullius usus sed gustu acuto et odorato. invenitur in aquosis collibus. radices habet duas aut tres binum cubitorum in altitudinem, nervosas, candidas, firmas. circumfoditur autumno et praeciso frutice¹ radix² dat sucum radix gummis similem. mira vulneribus sanandis traditur praecipueque nervis vel praecisis inlita. decoctum quoque eius cum melle potum dissolutiones nervorum et infirmitates et incisuras iuvat.

¹ praeciso frutice *codd.*: praecisa radice *Mayhoff*.

² radix *del. Detlefsen*.

^a See Book XVIII § 155.

^b What is the force of *novimus*? "Like git as we know it," i.e. in the form of imported seed. (A.C.A.)

^c Polygala = much milk.

into lozenges. These, dissolved in three cyathi of white wine, are given for thirty days to cure splenic affections, the spleen being reduced either by blood in the urine or through the bowels, as is plain immediately from the tenth day. The boiled leaves too are diuretic, and also beneficial to asthmatics; they aid delivery and bring away the after-birth if taken in drink in a similar way.

XCIV. *Pelecinos* I have said ^a grows in cornfields. *Pelecinos.* It makes a bushy plant with its stalks, and has leaves like those of the chick-pea. It bears seed, like git seed as we know it, ^b in three or four pods curved like little horns. This seed is bitter, a good stomachic, and an ingredient of antidotes.

XCV. *Polygala* is a full span in height, with *Polygala.* leaves, like those of lentil, on the top of the stem, and with an astringent taste. Taken in drink it promotes an abundant supply of milk.^c

XCVI. *Poterion*, or as some call it, phrynion *Poterion.* or neuras, is a spreading shrub, shrivelled and prickly, with thick down, small round leaves, long branches that are soft, flexible and slender, and a long flower of a grass-green colour. The seed is not used in medicine, but has a sharp, aromatic taste. The plant is found on moist hills. It has two or three roots, two cubits in depth, sinewy, white and firm. It is dug up in autumn, and when the shrub has been cut away, ^d the root yields a juice like gum. An application of the root is said to be a wonderful healer of wounds, especially of sinews even when they have been severed. A decoction of the root also, taken with honey, is good for relaxed, weak, or cut sinews.

^a There seems no need for Mayhoff's correction. When the top was cut off the root would "bleed."

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124 XCVIII. Phalangitis a quibusdam phalangion vocatur, ab aliis leucanthemum vel, ut in quibusdam exemplaribus invenio, leucacantha. ramuli sunt ei numquam pauciores duobus in diversa tendentes, flos candidus, lilio rubro similis, semen nigrum, latum,¹ ad lenticulae dimidia figuram, multo tenuius,² radice tenui, herbacei coloris. huius folio vel flore vel semine auxiliantur contra scorpionum phalangiorumque et serpentium ictus, item contra tormina.

125 XCIX. Phyteuma quale sit describere supervacuum habeo, cum sit usus eius tantum ad amatoria.

C. Phyllon a Graecis vocatur herba in saxosis montibus. femina magis herbacei coloris, caule tenui, radice parva. semen papaveris³ rotundo simile. haec sui sexus facit partus, mares autem mas,⁴ semine tantum differens quod est incipientis olivae. utrumque bibitur in vino.

126 CI. Phelandrion nascitur in palustribus folio apii. bibitur semen eius propter calculos et vesicae incommoda.

CII. Phaleris thyrsus habet longum, tenuem ceu calamum, in summo florem inclinatum, semen simile sesamiae. et hoc calculos frangit potum ex vino vel aceto vel cum melle et lacte, idem et vitia vesicae sanat.

¹ semen nigrum latum, *Mayhoff* : semine nigro lato, *codd.*

² tenuius *Mayhoff* : tenuis *codd.*

³ papaveris *ego* : papaveri *codd.*

⁴ mas *Brotier* : a *codd.*

^a Dioscorides III 108 : σπέρμα δὲ πλατύ, μέλαν, ὥσπερ φακοῦ ἤμισυ, ἰσχνότερον μέντοι πολλῶ. The Greek decides the readings of the Latin, and also explains the apparent inconsistency between *latum* and *tenuius*.

xcviii. Phalangitis is called by some phalangion, *Phalangitis*. by others leucanthemum, or, as I find in some copies, leucacantha. It has little branches, never fewer than two, which grow in opposite directions; white flowers like the red lily in shape, a black, broad seed, of the shape of half a lentil, but much thinner,^a and a slender root of a grass-green colour. The leaves, flowers or seed of this plant are of help for the treatment of wounds inflicted by scorpions, poisonous spiders, and serpents; they are also good for griping colic.

xcix. To describe phyteuma is in my opinion a *Phyteuma*. waste of time, because it is used only for love-philtres.

c. Phyllon is the name given by the Greeks to a *Phyllon*. plant that grows on rocky heights. The female is more grass-green in colour than the male, with a slender stem and a small root. The seed is like the round seed of a poppy. This kind causes births of its own sex, the male those of males, differing from the female merely in its seed, which resembles that of the olive when it is just beginning to form. Both kinds are taken in wine.

ci. Phelandrion grows in marshy places, and has *Phelandrion*. leaves resembling celery. Its seed is taken in drink for ^b stone and troubles of the bladder.

cii. Phaleris has a stalk which is long and slender *Phaleris*. as a reed; at the top is a drooping flower; the seed resembles sesame seed, and is one of the remedies that break up stone in the bladder, being taken in wine, vinegar, or with honey and milk; it also cures complaints of the bladder.

^b It seems impossible to distinguish in such phrases, *propter*, *contra*, *ad*, *adversus*.

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CIII. Polyrrhizon folia habet myrti, radices multas. hae tusae dantur e vino contra serpentes, prosunt et quadripedibus.

- 127 CIV. Proserpinaca herba vulgaris est, eximii adversus scorpiones remedii. eadem contrita, addita muria et oleo e menis,¹ anginam eximie curari tradunt, praeterea et in quantalibet lassitudine recreari defessos, etiam cum obmutuerint, si subi-ciatur linguae; si devoretur, vomitionem sequi salutare.
- 128 CV. Rhecoma adfertur ex his quae supra Pontum sunt regionibus. radix costo nigro similis, minor et rufior paulo, sine odore, calfaciens gustu et adstrin-gens. eadem trita vini colorem reddit ad crocum inclinantem. inlita collectiones inflammationesque sedat, vulnera sanat, epiphoras oculorum sedat ex passo, insignita cum melle et alia liventia ex aceto.
- 129 farina eius inspergitur contra cacoethe et sanguinem reicientibus drachmae pondere in aqua, dysintericis etiam et coeliacis, si febris careant, in vino, sin aliter, ex aqua. facilius teritur nocte antecedente made-facta. datur et decoctum eius bibendum duplici mensura ad rupta, convolsa, contusis, ex sublimi
- 130 devolutis. si pectoris sint dolores, additur piperis aliquid et murræ, si dissolutio stomachi, ex frigida aqua sumitur, sic et in tussi vetere ac purulentis excreationibus, item hepaticis, splenicis, ischiadicis, ad² renium vitia, suspiria, orthopnoeas. arteriae

¹ et oleo e menis *hoc ordine codd.*: e menis et oleo *Mayhoff*.

² ad *codd.*: at *Mayhoff*, qui post ischiadicis punctum, post orthopnoeas comma ponit.

^a Mayhoff's reading: "oil and sprats-brine."

CIII. *Polyrrhizon* has leaves like those of myrtle, *Polyrrhizon*. and many roots. These are pounded and given in wine for snake bite. They are also of benefit when quadrupeds are bitten.

CIV. *Proserpinaca* is a common plant, and an *Proserpinaca*. excellent remedy for scorpion stings. It also, they say, when thoroughly crushed and with the addition of brine and sprats-oil,^a makes an excellent remedy for quinsy; moreover, however tired one may be, even so weary as to lose one's voice, to put it under the tongue is said to dispel the fatigue; also that to swallow it results in healthful vomiting.

CV. *Rhecoma* is imported from the regions beyond *Rhecoma*. Pontus. The root resembles dark costus, but is smaller and a little redder, without smell but with a hot, astringent taste. When pounded it also is of a wine-like colour, but inclining to saffron. Used as liniment it reduces gatherings and inflammations, and heals wounds; in raisin wine it relieves eye-fluxes; with honey it removes dark bruises, and in vinegar other livid marks. Powdered it is sprinkled over malignant sores; for spitting of blood a drachma by weight is taken in water; for dysentery too and coeliac disease, should no fever be present, it is given in wine, but where there is fever, in water. It is easier to pound if it is steeped the night before. Its decoction too is given, to be drunk in double doses, for ruptures, sprains, bruises, and tumbles from a height. Should there be pains in the chest, a little quantity of pepper and myrrh is added; should the stomach be relaxed, it is taken in cold water; so also for chronic cough and spitting of pus, likewise for liver complaints, spleen complaints, sciatica, kidney troubles, asthma, and orthopnoea. Rough-

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scabritias sanat ex passo tribus obolis potis trita aut decoctum eius. lichenas quoque ex aceto inposita purgat. bibitur contra inflationes et perfrictiones, febres frigidas, singultus, tormina, herpetas, capitis gravitates, melancholicas vertigines, lassitudinum dolores et convulsiones.

- 131 CVI. Circa Ariminum nota est herba quam resedam vocant. discutit collectiones inflammationesque omnes. qui curant ea addunt haec verba :

Reseda, morbis reseda,
scisne, scisne quis hic pullus egerit radices?
nec caput nec pedes habeat.

haec ter dicunt totiensque despuunt.

CVII. Stoechas in insulis tantum eiusdem nominis gignitur, odorata herba coma hysopi, amara gustu. menses ciet potu, pectoris dolores levat. antidotis quoque miscetur.

- 132 CVIII. Solanum Graeci *στυχνόν* vocant, ut tradit Cornelius Celsus. huic vis reprimendi refrigerandique.

- 133 CIX. Smyrnion caulem habet apii, folia latiora et maxime circa stolones multos quorum a sinu exiliunt, pingua et ad terram infracta, odore medicato cum quadam acrimonia iucundo, colore in luteum langue-

^a A pun on the noun and the verb.

^b Dioscorides says thyme, III 26: *ομοίαν ἔχουσα θύμω κόμην*, but *ὑσσώπος* occurs a few words later. See also the note on *coma*, p. 482.

^c See Book II 33. In Book VI 6, 2 Celsus speaks of *medicamenta reprimentia*.

^d Perhaps "parsley."

ness of the trachea is cured by three-oboli doses of it pounded and taken in raisin wine, or by its decoction. Lichen also is cleared away by an application of the root in vinegar. It is taken in drink for flatulence, chills, feverish shivers, hiccough, colic, herpes, heaviness of the head, bilious giddiness, tired pains, and sprains.

CVI. Around Ariminum is well known the plant *Reseda*, called reseda. It disperses all gatherings and inflammations. Those who use it in treatment add these words :

Reseda, allay ^a diseases ;
Dost know, dost know, what chick here uprooted
thee ?
May he have neither head nor feet.

They say these words three times, and spit three times on the ground.

CVII. Stoechas grows only in the islands of the same name, a fragrant plant with the foliage of hyssop ^b and a bitter taste. Taken in drink it is an emmenagogue, and relieves pains in the chest. It is also an ingredient of antidotes.

CVIII. Solanum according to Cornelius Celsus ^c is called *στυχνόν* by the Greeks. It has repressive and cooling properties.

CIX. Smyrnion has a stem like that of celery, ^d and rather broad leaves, which grow mostly about its many shoots, from the curve of which they spring ; they are juicy, ^e bending towards the ground, and with a drug-like smell not unpleasing with a sort of sharpness. The colour shades off to yellow ; the heads

^e Dioscorides for *pinguia* has *ὑπολίπαρα*.

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- scente, capitibus caulium orbiculatis ut apii, semine rotundo nigroque¹; arescit incipiente aestate. radix quoque odorata gustu acri mordet, sucosa, mollis. cortex eius foris niger, intus pallidus. odor murrae
- 134 habet qualitatem, unde et nomen. nascitur et in saxosis collibus et in terrenis. usus eius calfacere, extenuare. urinam et menses cient folia et radix et semen, alvum sistit radix, collectiones et suppurationes non veteres item duritias discutit inlita. prodest et contra phalangia ac serpentes admixto cachry aut polio aut melissophyllo in vino pota, sed particulatim, quoniam universitate vomitionem movet: qua de causa aliquando cum ruta datur.
- 135 medetur tussi et orthopnoeae semen vel radix, item thoracis aut lienis aut renium aut vesicae vitiis, radix autem ruptis, convulsis. partus quoque adiuvat et secundas pellit. datur et ischiadicis cum crethmo in vino. sudores ciet et ructus, ideo inflationem stomachi discutit, vulnera ad cicatricem perducit.
- 136 exprimitur et sucus radici utilis feminis et thoracis praecordiorumque desideriiis, calfacit enim et concoquit et purgat. semen peculiariter hydropicis datur potu, quibus et sucus inlinitur. et ad malagmata² cortice arido et ad obsonia utuntur cum mulso et oleo et garo, maxime in elixis carnibus. sinon concoctiones facit sapore simillima piperi. eadem in dolore stomachi efficax.

¹ nigroque *Mayhoff*: nigro quod *Basileensis editio, Detlefsen*: nigro qui *codd.*

² ad malagmata *ego*: in malagmate *Mayhoff*: malagmate aut malagmata *sine praepositione codd.*

^a *E.g.* a cough, catarrh or induration.

^b Professor Andrews thinks that there is a lacuna after *arido*.

of the stems are umbellate, as are those of celery; the seed is round and black. It withers at the beginning of summer. The root too has a smell, and a sharp, biting taste, being soft and full of juice. Its skin is dark on the outside, but the inside is pale. The smell has the character of myrrh, whence too the plant gets its name. It grows on rocky hills, and also on those with plenty of earth. It is used for warming and for reducing.^a Leaves, root, and seed are diuretic and emmenagogues. The root binds the bowels, and an application of it disperses gatherings and suppurations, if not chronic, as well as indurations; mixed with cachry, polium, or melissophyllum, it is also taken in wine to counteract the poison of spiders and serpents, but only a little at a time, for if taken all at once it acts as an emetic, and so is sometimes given with rue. Seed or root is a remedy for cough and orthopnoea, also for affections of thorax, spleen, kidneys or bladder, and the root is for ruptures and sprains; it also facilitates delivery and brings away the after-birth. In wine with crethmos it is also given for sciatica. It promotes sweating and belching, and therefore dispels flatulence of the stomach. It causes wounds to cicatrize. There is also extracted from the root a juice useful for female ailments, and for affections of the thorax and of the hypochondria, for it is warming, digestive and cleansing. The seed is given in drink, especially for dropsy, for which the juice also is used as liniment. The dried skin is used in plasters, and also as a side-dish^b with honey wine, oil and garum, especially when the meat is boiled.

Sinon tastes very like pepper and aids digestion. *Sinon*. It also is very good for pain in the stomach.

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137 CX. Telephion porcilacae similis est et caule et foliis. rami a radice septem octonique fruticant foliis crassis, carnosis. nascitur in cultis et maxime inter vites. inlinitur lentigini et, cum inaruit, deteritur. inlinitur et vitiligini ternis fere mensibus, senis horis noctis aut diei,¹ postea farina hordeacea inlinatur. medetur et vulneribus et fistulis.

138 CXI. Trichomanes adianto simile est, exilius modo nigriusque, foliis lenticulae densis, parvis,² adversis inter se. decoctum eius strangurias sanat in vino albo potum addito cumino rustico. esum³ cohibet capillos fluentes, aut si effluxerint, reparat, alopeciasque densat tritum et in oleo inlitum. sternumenta quoque gustatu movet.

CXII. Thalictrum folia coriandri habet pinguiora paulo, caulem papaveris. nascitur ubique, praecipue in campestribus. medentur ulceribus folia cum melle.

139 CXIII. Thlaspi duorum generum est: angustis foliis digitali latitudine et longitudine in terram versis, in cacumine divisis, cauliculo semipedali, non sine ramis, peltarum specie semine incluso lenticulae effigie, nisi quod infringitur, unde nomen. flos albi-
cat. nascitur in semitis et saepibus. semen asperi gustus bilem et pituitam utrimque extrahit, modus

¹ *Hic et ut add. Mayhoff*: aut VRd¹.

² *parvis e Theophrasto* (VII 14. 1) *Mayhoff*: *amaris codd.*

³ *esum Ianus*: *lienem Mayhoff coll. Diosc.*: *iesum codd.*

^a With Mayhoff's addition of *lienem*, "and also splenic disease."

^b See list of diseases.

^c Dioscorides IV 97: φύλλα . . . λιπαρώτερα.

^d See Dioscorides II 156: οἶονεῖ ἐντεθλασμένον. *Peltae* were

CX. *Telephion* resembles purslane in both stem and leaves. Seven or eight branches from the root make a bushy plant with coarse, fleshy leaves. It grows on cultivated ground, especially among vines. It is used as liniment for freckles and rubbed off when dry; it makes liniment also for psoriasis, to be applied for about three months, six hours each night or day; afterwards barley meal should be applied. It is also good treatment for wounds and fistulas.

CXI. *Trichomanes* resembles *adiantum*, but is thinner and darker; the leaves are like those of the lentil, closely set, small, and opposite one another. The decoction, taken in white wine, with wild cummin added, cures strangury.^a Eaten as food it prevents hair falling off, or if it has already done so, restores it. Beaten up and applied in oil it makes a thick growth when there is mange.^b Sneezing too is provoked by the taste.

CXII. *Thalictrum* has coriander-like leaves, but a little more fleshy,^c and the stem of a poppy. It grows everywhere, but particularly in flat, meadowy country. The leaves with honey are good treatment for ulcers.

CXIII. *Thlaspi* is of two kinds. One has narrow leaves, a finger in breadth and length, turned towards the ground, and divided at the tip. The stem is half a foot long, not without branches, and with seed enclosed in shield-like pods and shaped like a lentil, except that—hence comes the name—it is indented.^d The blossom is white, and the plant grows in lanes and in hedges. The seed has a sharp taste and brings away bile and phlegm by both vomit and

crescent-shaped shields. Either half of pepper-wort seed-pod is so shaped.

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sumendi acetabuli mensura. prodest et ischiadicis
infusum donec sanguinem trahat. menses quoque
140 ciet, sed partus necat. alterum thlaspi aliqui Per-
sicon napy vocant, latis foliis, radicibus magnis, et
ipsum utile ischiadicorum infusioni. prodest et
inguinibus utraque. praecipitur ut qui colligat dicat
sumere se contra inguina et contra omnes collectiones
et contra vulnera, una manu tollat.

141 CXIV. Trachinia herba qualis sit non traditur.
credo falsum et promissum Democriti portentosum
esse, adalligatam triduo absumere lienes.

CXV. Tragonis sive tragion nascitur in Cretae
tantum insulae maritimis, iunipiro similis et semine
et folio et ramis. sucus eius lacteus in cummim
spissatus vel semen in potione spicula e corpore cicit.
tunditur recens et cum vino inlinitur aut siccae farina
cum melle. eadem lactis abundantiam facit mam-
misque unice medetur.

142 CXVI. Est et alia herba tragos quam aliqui
scorpion vocant, semipedem alta, fruticosa, sine
foliis, pusillis racemis rubentibus grani tritici, acuto
cacumine, et ipsa in maritimis nascens. huius
racemorum¹ x aut xii cacumina trita ex vino pota
coeliacis, dysintericis, sanguinem excreantibus men-
sumque abundantiae auxiliantur.

¹ racemorum e *Diosc. Mayhoff*: ramorum *codd.*, *Dellefsen*.

^a *I.e.* like an enema.

^b Probably a mistake of Pliny's. Dioscorides (II 156) has only ἀγρί δὲ καὶ αἶμα. Mayhoff would change *donec* to *potione*, but the ποθὲν after αἶμα is, according to Wellmann, a part of the next clause.

^c "Persian mustard."

^d Mayhoff's emendation *racemorum* for the *ramorum* of the MSS. is confirmed by Dioscorides IV 51: ἐπὶ δὲ τῶν κλάδων

stools. The measure of a dose is an acetabulum. Injections ^a are good for sciatica, if continued until they draw blood.^b It is also an emmenagogue but kills the foetus. The other thlaspi is called by some Persicon napy; ^c it has broad leaves and large roots, while the plant itself is useful to make an injection for sciatica. Both kinds are good for affections of the groin. The picker is recommended to say that he is taking it as a remedy for the groin, all kinds of gatherings, and wounds. He should lift it with one hand.

CXIV. We are not told the nature of the plant *Trachinia*. trachinia. I think it untrue, and the assurance of Democritus fantastic, that used as an amulet it consumes the spleen in three days.

CXV. Tragonis, or tragion, grows only on the *Tragonis*. shores of the island of Crete, and resembles juniper in seed, leaf and branches. Its milky juice, hardened into gum, or its seed taken in drink, brings away sharp points embedded in the flesh. For use as liniment it is beaten up when fresh and applied with wine, or it is dried, powdered, and applied with honey. It also promotes abundance of milk, and is a specific for ailments of the breasts.

CXVI. There is also another plant, tragos, called *Tragos*. by some scorpion, half a foot high, bushy, without leaves, and bearing tiny red clusters with wheat-like seeds, and pointed at the extremity. This plant too grows in coastal districts. Ten or twelve extremities of clusters,^d pounded and taken in wine, are good for coeliac affections, dysentery, spitting of blood, and excessive menstruation.

πρόσκεινται οἶονεὶ ῥάγες μικραί, πυρραί, κατὰ μέγεθος πυροῦ,
ὀξεῖαι ἐπ' ἄκρον . . . τούτου ὁ καρπός, ὡς ῥάγες δέκα, σὺν
οἴνῳ ποθεῖται κοιλιακούς καὶ ροϊκὰς ὠφελούσι.

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CXVII. Est et tragopogon quem alii comen vocant, caule parvo, foliis croci, radice longa dulci, super caulem calice lato nigro. nascitur in asperis manditurque, sine usu.

143 CXVIII. Et de herbis quidem memoria digna hactenus accepimus aut comperimus. in fine earum admonere non ab re iudicamus alias aliis virium aetates esse. longissimo tempore durat elaterium, ut diximus, chamaeleon niger XL annis, centaurium non ultra XII, peucedanum et aristolochia ad VI, vitis silvestris anno, in umbra si servantur. et animalium quidem exterorum nullum aliud radices a nobis dictas adtingit excepta sphondyle quae omnes persequitur. genus id serpentis est.

144 CXIX. Ne illud quidem dubitatur, omnium radicum vim effectusque minui, si fructus prius ematurescant, item seminum ante radice propter sucum incisa, resolvitur autem omnium vis consuetudine, et desinunt prodesse, cum opus est, quae cottidie in usu fuere acque quam nocere. omnes vero herbae vehementiores effectu viribusque sunt in frigidis et in aquilonis, item siccis.

145 CXX. Sunt et gentium differentiae non mediocres, sicut accipimus de taeniis lumbricisque, inesse Aegypti, Arabiae, Syriae, Ciliciae populis, e diverso Threciae, Phrygiae omnino non innasci. minus id mirum quam quod in confinio Atticae et Boeotiae Thebanis

^a See Book XX § 5.

^b This phrase is probably an interpolation, a marginal note added to the text.

^c Or "seed."

CXVII. There is also tragopogon, called by some *Tragopogon*. *come*, with a small stem, leaves like those of saffron, a long, sweet root, and at the top of the stem a broad, dark calyx. It grows on rugged soils, and is eaten but never used in medicine.

CXVIII. Such is all that I have been told or discovered worth recording about plants. At the close, I think it not out of place to add a warning that their properties vary with their age. As I have said,^a elaterium lasts longest, dark chamaeleon forty years, centaury not more than twelve, peucedanum and aristolochia up to six, and the wild vine one year—that is, if they are kept in the shade. And of external animals indeed none attack the roots that I have mentioned except the sphondyle, a kind of creeping thing,^b which infests them all.

CXIX. There is no doubt either that the potency and efficacy of all roots are lessened if the fruit ^{*Age and potency of plants.*} *c* ripens before they are dug, and it is the same with seeds if the root has been cut previously for the sake of the juice. The properties moreover of all plants are weakened by habit, and they cease to be beneficial when needed if they have been in daily use; similarly with harmful plants. All plants however have greater efficacy and potency when they grow in cold regions subject to north-east winds, and likewise those that grow in dry. ^{*Drugs and habit.*}

CXX. There are also considerable differences between races. I have heard for instance about tapeworms and maw-worms, that they infest the peoples of Egypt, Arabia, Syria and Cilicia, while on the contrary they are never found at all among those of Thrace and Phrygia. This is less remarkable than their being found among the Thebans, but not among

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innascuntur, cum absint Atheniensibus. quae con-
146 templatio aufert nos ad ipsorum animalium naturas
ingenitasque his vel certiores morborum omnium
medicinas. rursus enim cum rerum¹ parens nullum
animal ad hoc tantum ut pasceretur aut alia satiaret
nasci voluit, artesque salutare inseruit et visceribus,
quippe cum surdis etiam rebus insereret, tum vero
illa animae auxilia praestantissima ex alia anima
esse voluit contemplatione ante cuncta mirabili.

¹ rursus enim cum rerum *Mayhoff*: rursus enim eam rem
tractabimus, quandoquidem natura omnium rerum *Detlefsen*:
rursus enim eam rem (ea re d T) *codd.*

the Athenians, although Attica and Boeotia are adjoining territories. That thought brings me to the nature of animals themselves, and to the remedies for all diseases, of even greater reliability, that are implanted in them at birth. For again, the Mother of all creation both willed that no animal should be born merely to eat or to satisfy the appetites of others, implanting also healthful medicines in their vitals, because she was implanting them even in unconscious things, and she also willed that those outstanding aids to life should come from another life, a thought beyond all else most wonderful.

ADDITIONAL NOTES

The word *coma* in Pliny, like *κόμη* in Greek, is sometimes perplexing when it is used, not literally, but of a part of a plant or tree. This is especially true when the word *folium* occurs in the immediate context.

When used in its strict sense *coma* is the hair of the head, and so can be coupled with *barba*. We should expect, therefore, to find it used figuratively of anything that grows at the top of a plant or tree, such as the tuft of a bulrush; see Pliny XXVI § 62 in *cacuminibus coma iunci*. In several passages, however, *coma* seems to be foliage generally, while *folium* is used of a single leaf. Examples are :

XII § 113. *folium proximum tuberi, perpetua coma.*

XVI § 84. *neque his autem quae semper retinent comas eadem folia durant.*

XIX § 102. *schistam hieme cum coma sua relinquunt, vere folia detrahunt.*

In Dioscorides IV § 129 there is a distinct contrast between φύλλα and κόμη, which leads Mayhoff in the parallel passage of Pliny (XXVII § 93) to substitute *coma* for the *concava* of the MSS. Here Mayhoff suggests, without adopting it, *comantia*, citing as a parallel XIII § 59, *semper comantibus foliis*. Here, however, the addition of *semper* makes a difference. Leaves can be *semper comantia*, "evergreen," but one could hardly say that the leaves are "like those of wild myrtle, *comantia*, *spinosa*." The passage of Dioscorides reads : *μυρσίνη ἀγρία . . . ἔχων τὰ φύλλα ὅμοια, κόμην δὲ ἀκανθώδη κ.τ.λ.* Here there seems to be a real difference between the two words, nor can *κόμη* be a filament, as that could hardly be *ἀκανθώδης*.

There remain those passages where *comae* means "hair-like filaments," the clearest being XXVI § 133 : *dependere comis iunceis multis, nigris, ut ex equorum cauda*. Two dubious instances near the beginning of Book XXVII call for special notice. In § 26 we have : *comae tritae sanguineo suco*

ADDITIONAL NOTES

manant, the corresponding words in Dioscorides being (III 156) *πεφοινιγμένος τὰ ῥαβδία*; in § 37 : *comae tritae velut cruentant*, the Greek being (III 155) *ἀνθη . . . ἐν τῷ παρατριβῆναι οἶον ἐὶ αἰμάσσοντα τοὺς δακτύλους*.

Apparently Pliny here may be localizing the staining substance. He seems to put it in the filament, the hair-like part of the stamen that supports the anther.

Summing up we may say that *coma* means :

- (1) everything except the bare skeleton of stem (trunk) and branches, *i.e.* foliage and its appendages;
- (2) a tuft;
- (3) any hair-like part of a plant.

ADDITIONAL NOTE ON XXIV § 166

It is obvious from the phrases *pulchros bonosque* of this section and *pulchri bonique et fortunati* of XXVI § 19, both of which profess to report Democritus, that Pliny had before him some case of *καλὸς κάγαθός*, and that it, or some variant of it, gives the general sense here. Why the text has been corrupted, as it obviously has, is a puzzle, for the meaning is both clear and easy. The reading of Detlefsen and Mayhoff, with *bonis*, is hard to translate, implying that the parents must be *boni*. I have printed (within daggers) the vulgate text, which is that of the MS. X. Perhaps the *excellentis* of the MS. d is right, and the original was merely *excellentis animi et formae* with *partum* (Mayhoff suggests *excellentem* for *excellentes*) understood. *Bonos* or *bonis* may be later insertions.

Alternatively, *formae* may be a corruption of *formosos* or *fortunatos*. Improbable as this is, it is less improbable than the actual corruptions which occurred in a phrase so plain and so simple.

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Problems incidental to the identification of plants mentioned by Pliny have already been discussed (Vol. VI, Introd., pp. xvi-xviii).

The identifications of such early editors of the *Natural History* as Hardouin (1713), Fée (1826), Bostock and Riley (1855), and Littré (1855) are unreliable, since data on the actual flora of Italy and Greece were then inexact; and there has been no systematic, comprehensive approach to the problem in the succeeding century. Many of the plants mentioned by Pliny are discussed also by Dioscorides; but the more recent editions of Dioscorides, such as those of Berendes (1902) and Gunther (1934), mostly list the identifications of such early scholars as Sprengel, Fraas, and Daubeny. As for Theophrastus, only in the case of Sir William Thiselton-Dyer's index of plants in the LCL edition of his *Enquiry into Plants* by Sir Arthur Hort is consideration given to the scientific enumeration of the native plants of Greece by E. de Halácsy in his *Conspectus florae Graecae* (1901-1904, supplements 1908 and 1912) and special research prosecuted by De Candolle, Hanbury, Yule, Schweinfurth, Bretzl, and others. Halácsy's work has been refined by M. Rikli and E. Rübel in their article, "Über Flora und Vegetation von Kreta und Griechenland" (*Vierteljahrsschrift der naturforschenden Gesellschaft in Zürich*, 68 [1923], pp. 103-227), and there is also available Rikli's general survey of the Mediterranean flora, *Das Pflanzenkleid der Mittelmeerlande* (1943 and 1946). As for Italy, we now have Adriano Fiori's comprehensive survey, *Nuova flora analitica d'Italia* (1923-1929), and Eugenio Baroni's briefer compendium, *Guida botanica d'Italia* (1932). Problems relative to cultivated plants have been considerably clarified by the work of Elisabeth Schieman (Die Entstehung

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der Kulturpflanzen, 1932) and Karl and Franz Bertsch (*Geschichte unserer Kulturpflanzen*, 2nd ed., 1949). The new edition of the *Greek-English Lexicon* of Liddell and Scott draws upon most of these sources and is very helpful in those instances in which Pliny cites Greek plant names.

Nevertheless, identification of Pliny's plant names is still often difficult and sometimes impossible. It is necessary frequently to qualify the identification by "probably," "possibly," or "perhaps," or simply to say "unknown." Pliny's practice of citing several secondary names for a plant, adopted from certain of the pharmaceutical sources he consulted, involves much overlapping. In the index, the identification is regularly coupled with the primary name, and with this the secondary names are equated.

- Abellana (nux), hazelnut, esp. *Corylus avellana*, XV 88, XVI 120, 121, XVII 96, 136, XXII 152, XXIII 145, 150, XXV 138, 148, XXIX 44, XXX 87, 105, XXXVII 56, 81.
- Abies, silver fir, *Abies cephalonica* and *A. pectinata*, XII 134, XIII 137, XV 67, XVI 30, 38, 41, 42, 46, 48, 74, 80, 90, 91, 100, 106, 122, 125, 126, 127, 128, 129, 138, 187, 195, 196, 201, 203, 221, 222, 225, 245, XVII 26, 91, 235. *Abies* as a seaweed (XIII 127) is *Cystoseira abies-marina*.
- Abiga = chamaepitys, XXIV 29.
- Absinthium, wormwood, *Artemisia absinthium*, sometimes perhaps *A. santonica* or *pon-tica*, XI 194, XII 31, XIV 109, XVIII 305, XIX 179, 186, XX 15, XXI 135, 160, XXII 65, 147, XXIII 52, 123, 146, XXIV 133, XXV 73, 145, XXVI 91, 124, 151, XXVII 45-53, XXVIII 203, XXIX 133; = seriphum, XXXII 100.
- Acacia, Egyptian acacia, *Acacia arabica*, XX 48, 208, 233, XXIII 65, XXIV 43, 109, XXVII 16, XXX 56, 57.
- Acanthion, usually cotton thistle, *Onopordon acanthium*, and probably also *O. illyricum*, but in XXIV 108 a thorn-tree, perhaps *Acacia arabica*.
- Acanthis = senecio = erigeron, groundsel, *Senecio vulgaris*, XXV 168.
- Acanthus, bear's foot, *Acanthus spinosus* and *mollis*, XXII 76, XXV 62, 78, XXVI 137.
- Acanus, pine-thistle, *Atractylis gummifera*, or perhaps cotton thistle, *Onopordon acanthium*, XXII 23.
- Acer, Montpellier maple, *Acer monspessulanum*, XII 56, XVI 66-69, 74, 91, 97, 106, 119, 185, 206, 211, 231, 233, XVII 201, XXIX 46, XXXIII 146.
- Achaemenis, perhaps a variety of ancient milkwort. *Euphorbia antiquorum*, XXIV 161, XXVI 18.

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- Achilleos (also achillea and achillia), Achilles' wound-wort, *Achillea tomentosa*, *A. millefolium*, *A. ptarmica*, and *A. magna*, XXV 42, 164, XXVI 51, 131, 151.
- Achne pyros, mezerlon, *Daphne mezereum*, XIII 114.
- Achynops, rib grass, a plantain, *Plantago lanceolata* (?κίνοψ), Theophrastus VII 7, 3), XXI 89, 101 (emended).
- Acinos, perhaps wild basil, *Ocimum basilicum*, or (Littre) acinos, *Thymus acinos*, XXI 174.
- Aconitum, wolf's bane, *Aconitum anthora*, VI 4, VIII 100, XX 50, 132, XXII 18, XXIII 43, 92, 135, XXV 163, XXVII 4-10, XXVIII 161, XXIX 74, 105.
- Acepon (-os) = anagyros, XXVII 30.
- Acorna, a thistle, perhaps welshed thistle, *Cnicus acarna*, XXI 94, 95.
- Aceron (-um), yellow flag iris, *Iris pseudacorus*, or sweet flag, *Acorus calamus*, XIV 111, XXV 157, 164, XXVI 28, 35, 45, 74, 77, 80, 91, 127, 137, 160, 163. In XXV 144 probably a mistake for corchoron; in XV 27 = chamaemysine; in XXV 158 = root of oxy-mysine.
- Actaea, baneberry, *Actaea spicata*, XXVII 43.
- Acte, usually the elder, *Sambucus nigra*, identified in XXVI 120 with ebulum, usually the dwarf elder, *S. ebulus*.
- Adamantis, unknown, XXIV 162.
- Adiantum, black maidenhair, *Adiantum capillus Veneris*, or maidenhair spleenwort, *Asplenium trichomanes*, XXI 100, XXII 62-65, XXVII 49, 138, XXVIII 163.
- Adipsos, (1) a kind of date, XII 103; (2) = glycyrrhiza, XXII 26.
- Ador (adoreum), emmer wheat, *Triticum dicoccum*, XVIII 14, 81, 163, 166, 191.
- Aegilops in XVI 22 and 33, Turkey oak, *Quercus cerris*, elsewhere the grass *Aegilops ovata*, XVIII 155, XXI 103, XXV 146, XXVI 130.
- Aegoceras, fenugreek, *Trigonella foenum graecum*, XXIV 184.
- Aegolethron, rosebay, chiefly common azalea, *Rhododendron ponticum*, XXI 74.
- Aera, darnel, *Lolium temulentum*, XVIII 155, 156. XXI 129 (emend.), XXII 125, XXIV 100.
- Aeschynomene, sensitive plant, *Mimosa asperata*, XXIV 167.
- Aesculus, chestnut oak, *Quercus sessiliflora*, XII 3, XVI 11, 17, 19, 20, 25, 37, 106, 127, 219, XVII 151.
- Aethalium, a kind of grape, XIV 74.
- Aethiopsis, perhaps silver sage, *Salvia argentea*, or Ethiopian sage, *S. aethiopsis*, XXIV 163, XXVI 18, XXVII 2, 11, 12.
- Aetites = clematis, XXIV 139.
- Agaricum, a tree fungus, such as *Boletus igniarius*, *B. laricis*, *B. flavus*, or *B. hepaticus*, XVI 33, XXV 103, 119, 128, XXVI 32, 33, 34, 38, 42, 54, 75, 76, 77, 78, 89, 90, 110, 112, 113, 115, 116, 119, 123, 137, 155, 158, XXVIII 158.
- Ageraton, pot-marjoram, *Origanum onites*; has also been identified as *Hypericum or-*

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- ganifolium* or sweet yarrow,
Achillea ageratum, XXVII 13.
- Aglaophotis, magical plant, perhaps peony, *Paeonia officinalis*, XXIV 160.
- Agnos, chaste-tree, *Vitex agnus-castus*, XIII 14, XXIV 59.
- Aizoûm, maius = house-leek, *Sempervivum arboreum*, and minus = stone-crop, *Sedum album*, XVIII 159, XIX 179, XXIV 169, 182, XXV 160, 162, XXVI 32, 45, 100, 111, 121, 127, 129, 131, 137, 145, 163, XXVII 14, XXXII 40.
- Alaternus, the alaternus, *Rhamnus alaternus*, XVI 108.
- Albicera, a kind of olive, XV 20.
- Albucus = asphodelus, XXI 109, XXVI 21.
- Albuclis, a kind of grape-vine, XIV 31.
- Alcea, a species of mallow, perhaps *Malope malachoides*, XXVI 25, XXVII 21.
- Alcibium, possibly Cretan bugloss, *Echium parviflorum*, XXVII 39.
- Alcima = alisma, XXVI 25 (*emend.*), 45, 83, 128, 130, 158. Alcima is the MS. reading in XXV 124 and XXVI 128, kept by Mayhoff. The reading restored from Dioscorides is alisma.
- Alectoros lophos, yellow rattle, *Rhinanthus major*, XXVII 40.
- Alga, sea-weed, XIII 135, XXV 130, XXVI 149, XXVII 42, XXXI 115, XXXII 66, 111.
- Alica, nearly always the preparation, usually made from emmer, *Triticum dicoccum*, sometimes from naked wheat; in rare instances the wheat itself, III 60, XIII 106, XVIII 50, 71, 106, 109, 112, XXII 110, 116, 124, 128, 136, XXVI 32, 44, XXVIII 231.
- Alisma, water-plantain, *Alisma plantago*, XXV 124.
- Alium, garlic, *Allium sativum*, X 157, XIII 133, XIX 99, 101, 106, 111-116, XX 50-57, XXII 140, XXV 50, 76, XXVIII 200, 265, XXIX 78, 133, XXXII 128, XXXVI 79.
- Alnus, alder, *Betula alnus*, XVI 69, 77, 90, 98, 108, 173, 210, 218, 219, 224, 231, XVII 68, 91, XXIV 74, XXXI 44.
- Aloe, bitter aloes, *Aloe vera*, XIV 68, XX 142, XXI 76, XXVI 59, 61, XXVII 14.
- Alopecis, a kind of grape, XIV 42.
- Alopecurus, "fox-tail", rabbit-foot grass, *Polypogon monspeliensis*, XXI 101.
- Alsine, perhaps lich-wort, *Parietaria lusitanica*, XXVII 23.
- Altercum or altercangenum = hyoseyamos, XXV 35.
- Althaea, marsh mallow, *Althaea officinalis*, XX 129, 222, 229.
- Alum, a term applied to several different plants, in XIX 116 given as a term for a wild form of garlic, in XXVII 41 a type of comfrey, *Symphytum*.
- Alypon, globe daisy, *Globularia alypum*, XXVII 22.
- Alysson, madwort, *Asperugo procumbens*, XXIV 95.
- Amaracus, sweet marjoram, *Origanum marjorana*, XIII 5, 13, 14, 18, XXI 37, 59, 61, 67, 163, 176. In XXI 176 a secondary name for pellitory, *Parietaria officinalis*.
- Amarantus, cockscomb or amaranth, *Celosia cristata*, XXI 47, 68.

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- Ambrosia = aizōum maius, XXV 160; = artemisia, XXV 74, XXVII 28, 55; a kind of grape, XIV 40.
- Ambubaia = intubus erraticus, wild chicory, *Cichorium* sp., XX 73.
- Amerimnon, house-leek, *Sempervivum tectorum*, XXV 160.
- Ami, has been identified as bishop's weed, *Carum copticum* (*Ammi copticum*), and pick-tooth, *Ammi visnaga*, XX 163, 264.
- Amomis, an inferior type of amomum, XII 49.
- Amomum, a product probably of one or more of the usual cardamom substitutes, such as *Amomum subulatum*, *A. cardamomum*, and *A. krevanh*, XII 48, 50, XIII 15, 16, 18, XIV 107, XVI 135, XXVI 34, 105, XXXVII 204.
- Amelodesmos, esparto, *Lygeum spartum*, XVII 209.
- Anipeloprason, wild leek, *Allium ampeloprasum*, XXIV 136.
- Ampelos agria, probably black bryony, *Tamus communis*, XXVII 44. In XXIII 19 = labrusca.
- Ampelos leuce = vitis alba, XXIII 21.
- Amygdala, almond, *Prunus amygdalus*, XII 25, 36, 37, 56, 125, XIII 8, 19, 60, 66, XV 26, 42, 89, 109, 114, XVI 83, 86, 103, 109, 117, XVII 11, 63, 88, 131, 135, 237, 248, 252, XXIII 85, 144-145, XXIV 22, XXVI 111, XXVIII 254.
- Amygdalites = platyphyllos, XXVI 70.
- Anabasis = ephedra, XXVI 36; = equisactum, XXVI 133.
- Anacampseros, perhaps *Sedum anacampseros*, XXIV 167.
- Anagallis, pimpernel, *Anagallis arvensis*, incl. subsp. *phoenicea* and *caerulea*, XXV 144, 166, XXVI 35, 55, 80, 90, 102, 118, 119, 144.
- Anagyros, stinking bean-trefoil, *Anagyris foetida*, XXVII 30.
- Anarrinon, v.l. for pararinon aut sim., XXV 129.
- Anchusa, alkanet, *Anchusa officinalis*, XIII 7, 9, 10, XXI 85, 99, 121, XXII 48, 50, XXVII 59, 110, XXVIII 151, XXXII 85, XXXVII 48. In XXII 51 a secondary name for onochilon.
- Andrachle (andrachne), (1) andrachne, *Arbutus andrachne*, XIII 120, XVI 80, XVII 234; (2) purslane, *Portulaca oleracea*, XIII 120, XXV 162.
- Androsacos, sea-navel, *Acetabularia mediterranea*, XXVII 25.
- Androsaeon, perfoliate St. John's wort, *Hypericum perfoliatum*, XXVII 26, 37.
- Anemone, usually poppy anemone, *Anemone coronaria*, XXI 64, 65, 99, 164, XXV 102, 151, XXVI 109; = othonna, XXVII 109.
- Anesum, anise, *Pimpinella anisum*, XIX 167, XX 185-195, 249, 253, 264, XXVII 94, XXVIII 100, XXX 115.
- Anetum, dill, *Anethum graveolens*, XIII 123, XIX 62, 117, 119, 123, 124, 167, 170, 186, 188, XX 21, 87, 110, 191, 196, 260, XXII 77, XXVIII 97, 208, XXIX 47, 70, 80, 121, XXXI 119, XXXII 94, 101.
- Angemon, Avens, *Geum urbanum*, but in XXIV 6 = Lappa canaria.

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- Anicetum = anesum, XX 186.
- Anonis (see also Ononis), rest-harrow, *Ononis antiquorum*, XXI 91, 98, XXVII 29.
- Anonymos, "nameless plant," XXVII 31.
- Anthalion, earth-almond, *Cyperus esculentus*, XXI 88, 175.
- Anthedon, Oriental thorn, *Crataegus orientalis*, XV 84.
- Anthemis, wild chamomile, *Matricaria chamomilla*, also *Anthemis chia*, XXI 99, 103, XXVI 87. Otherspecies of *Anthemis* may be referred to in XXII 53.
- Anthericus, stalk of asphodel, XXI 109, XXII 67, XXVII 14.
- Anthophoros = smilax, XXIV 83.
- Anthyllis, herb ivy, *Ajuga iva*, XXVI 84, 160.
- Anthyllium, Cretan pitch-plant, *Cressa cretica*, XXI 175, XXVI 84.
- Anthyllum = anthyllium, XXI 175.
- Anticyricon, the second type of sesamoides, *s.v.*, XXII 133.
- Antirrhinum, snapdragon, *Antirrhinum orontium*, XXV 129, XXVI 155.
- Antiscorodon, Cyprian garlic, a form of *Allium sativum*, XIX 112.
- Aparine, bedstraw, *Galium aparine*, XXVII 32.
- Aphaca, tare, *Vicia sativa*, XXI 89, 99, 100, 105, XXVII 38.
- Apharce, hybrid arbutus, *Arbutus hybrida*, XIII 121.
- Aphron = mecon aphrodes (1), XX 207.
- Apiaca brassica, "celery" cabbage, from its crisped leaves, Savoy cabbage, *Brassica oleracea sabauda*, XIX 136.
- Apiana, a kind of grape, XIV 81.
- Apiastrum, balm, *Melissa officinalis*, XX 116, XXI 53; in XXI 70 perhaps *Selinum palustre*. The poisonous type mentioned in XX 116 is perhaps a *Ranunculus*.
- Apios ischas, a spurge, *Euphorbia apios*, XXVI 72.
- Apium, celery, *Apium graveolens*, perhaps to some extent also parsley, *Petroselinum sativum*, XIV 105, XVI 38, 164, XIX 42, 98, 117, 118, 119, 120, 121, 122, 124, 158, 168, 183, 185, 186, 188, XX 79, 111, 112-115, 189, 191, 253, 264, XXII 62, 84, XXIV 85, XXV 102, 141, XXVI 88, XXVII 49, 133, XXIX 42, 80, XXXII 94, 132.
- Apocynon, dog's-bane, *Marsdenia erecta*, XXIV 98, XXXII 52.
- Apollinaris = hyoscyamus, XXV 35, XXVI 140, 147.
- Appendix, barberry, *Berberis vulgaris*, XXIV 114.
- Apronia = vitis nigra, i.e., white bryony, *Bryonia alba*, XXIII 27.
- Aproxis, uncertain, white dittany, *Dictamnus albus*, suggested, XXIV 158.
- Apyrenum, "pipless" pomegranate, *Punica granatum*, a type with soft seeds, XIII 112, XXIII 106.
- Aquifolium, holly-tree, *Ilex aquifolium*, XV 101, XVI 32, 73, 80, 90, 91, 98, 230, 231, XXIV 116, XXVII 63.
- Arachidna, ground-pease, *Lathyrus amphicarpus*, XXI 89.
- Aracia (-tia), a kind of fig-tree, XV 70.
- Aracos, a vetch of uncertain

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- identity, possibly *Lathyrus sativus*, *Vicia villosa*, or *V. Sibthorpii*, XXI 89.
- (Arbor) lanigera, cotton-plant, *Gossypium arboreum*, VI 54, XII 17, 25, 38. The arbor lanifera of Ethiopia (XIII 90; cf. XII 38) is probably also the cotton-plant, and perhaps also the lanatum of Italy (XV 48).
- Arbutus, strawberry-tree, *Arbutus unedo*, XV 57, 99, XVI 116, XXIII 151. See also Unedo.
- Arceraca, a kind of grape-vine, XIV 35.
- Archebion = onochilon, XXII 51.
- Archezostis = vitis alba, XXIII 21; see also XXVI 113, 164.
- Arcion, (1) = persolata (persolata), XXV 113; (2) a secondary name for bechion, colt's foot, *Tussilago farfara*, XXVI 30.
- Arction, bearwort, *Inula candida*, XXVI 129, XXVII 11, 33.
- Arcturus = arction, XXVII 33.
- Argemon, avens, *Geum urbanum*, XXIV 176.
- Argemonia, wind-rose, *Papaver argemone*, XXI 165, XXV 102, XXVI 23, 76, 101, 112, 127, 130, 146, 150.
- Argemonion, probably identical with preceding. = inguinalis, XXVI 92, perhaps = bubonion, XXVII 36.
- Argitis vitis, grape-vine with white grapes, XIV 35.
- Arianis, a wild plant of Ariana, XXIV 162.
- Ariena, fruit of the Indian tree pala, XII 24.
- Arinea, a soft type of emmer, *Triticum dicoccum*, XVIII 61, 81, 92, XXII 121.
- Aris, an arum, perhaps hooded arum, *Arisarum vulgare*, XXIV 151, XXVII 58.
- Aristereon = verbenaca, XXV 105, XXVII 21.
- Aristis = holcus, XXVII 90.
- Aristolochia, birthwort, *Aristolochia* sp., esp. *A. rotunda*, *longa*, *clematitis*, and *crotica*, XXV 95-98, 101, 119, 128, 134, 141, 143, 165, 166, XXVI 32, 33, 41, 53, 75, 90, 111, 117, 126, 137, 142, 154, XXVII 143, XXVIII 254.
- Armeniaca (arbor), apricot-tree, *Armeniaca vulgaris*, XV 40, 41, XVI 103.
- Armon = armoracia, XIX 82.
- Armoracia, a type of wild radish, *Raphanus raphanistrum*, XIX 82, XX 22.
- Aron. See Arum.
- Arrhenogonon, perennial mercury, *Mercurialis perennis*, XXVI 99.
- Arsen, white-rooted mandragoras, perhaps *Atropa belladonna*, XXV 148.
- Arsenogonon, probably = arrhenogonon, XXVI 162.
- Artemisia, mugwort, *Artemisia vulgaris*, XXV 73, 74, 130, XXVI 24, 26, 81, 150, 152, 159, XXVII 28, 55.
- Arum (or aron), (1) cuckoo-pint, *Arum italicum*, (2) edderwort, *Arum dracuncululus*, VIII 129, XXIV 142-148; in XIX 96 probably the Indian lotus, *Nelumbo nucifera*.
- Asarum, hazelwort, *Asarum europaeum*, XII 47, XIV 107, 111, XXI 30, 134.
- Aselepias, swallow-wort, *Vincetoxicum officinale*, XXVII 35.

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- Asclepion, probably hairy laserwort, *Laserpitium hirsutum*, or sea parsnip, *Echinophora tenuifolia*, XXV 30.
- Ascyroides, probably a species of St. John's wort, *Hypericum*, XXVII 37.
- Ascyron, common St. John's wort, *Hypericum perforatum*, XXVII 26, 37.
- Asia, rye, *Secale cereale*, XVIII 141.
- Asinusca, a kind of grape, XIV 42.
- Aspalathos, (1) in XII 110 and XXIV 111 camel's thorn, *Alhagi maurorum*; (2) in other authors, and perhaps in some of the following passages, also thorny trefoil, *Calycotome villosa*, and *Genista acanthoclada*, XIII 12, 18, XIV 107, XV 30, XXI 122.
- Asparagus, used (1) generically as a term for any tender shoot put forth by a spinous plant before development of the leaves, and (2) as a term for asparagus in particular, both (a) cultivated, mostly *Asparagus officinalis* and *A. acutifolius*, and (b) wild, *A. acutifolius*, *A. tenuifolius*, and *A. albus* in Italy, and *A. acutifolius*, *A. aphyllus*, and *A. verticillatus* in Greece, XIV 105, XVI 173, XIX 54, 145-151, XX 108-111, XXI 86, 91, 165, XXII 39, XXIII 21, 27, XXVI 84.
- Aspendios, a kind of grape-vine, XIV 117.
- Asperugo, madwort, *Asperugo procumbens*, XXVI 102.
- Asphaltion, treacle clover, *Psoralea bituminosa*, XXI 54.
- Asphodelus, branching asphodel, *Asphodelus ramosus*, in Greece also *A. fistulosus*, *A. albus*, and *A. microcarpus*, XXI 108, XXII 31, 67-72, 73, XXVI 147.
- Asplenon, scale fern, *Asplenium ceterach*, XXVII 34.
- Astaphis = staphis, XXIII 17.
- Aster, Italian aster, *Aster amellus*, XXVII 36.
- Astercum, wall-pellitory, *Parietaria officinalis*, XXII 43.
- Astragalus, Spanish tragacanth, *Astragalus baeticus*, XXVI 46, 131, 145, 147.
- Asyla = felis oculus, unknown, XXV 145.
- Ateramon, see Teramon.
- Atinia, loose-flowering elm, *Ulmus effusa*, XVI 72, 108, XVII 200, 208.
- Atractylis, distaff-thistle, *Carthamus lanatus*, XXI 95; = cnecos, XXI 90, 184.
- Atriplex, orache, *Atriplex hortense*, XIX 99, 117, 119, 120, 123, 170, 181, XX 219. The wild form (XIX 117, XX 219-221) is perhaps *Atriplex nitens* or *Chenopodium album*.
- Auleticon, a kind of reed, XVI 169.
- Avena, oats, *Avena sativa*, IV 95, VI 188, XVII 56, XVIII 61, 143, 149-150, 205, XXI 129, XXII 137, 161, XXIX 143, XXX 38, 75. See also Bromos.
- Babbia, a kind of olive, XV 15.
- Baccar, hazelwort, *Asarum europaeum*, XXI 29, 30, 132, 133, 135, XXVI 113.
- Baccaris (XII 45, XXI 29) = baccar.
- Bacchica, a kind of ivy, XVI 147.

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- Balanitis, chestnut, *Castanea vesca*, XV 93.
- Balanos, normally a term for an acorn, in XII 121, XIII 8, 12, 13, 15, XXII 149 rather the fruit of the Egyptian balsam, *Balanites aegyptiaca*, or perhaps the behen-nut, *Moringa oleifera*, in XIII 61 the tree. Balanos Sardinian and Dios balanos (XV 92) are the chestnut, *Castanea vesca*.
- Balis, perhaps the squirting cucumber, *Momordica elaterium*, XXV 14.
- Balisca, a kind of grape-vine, XIV 30.
- Ballote = porrum nigrum, black horehound, *Ballota nigra*, XXVII 54.
- Balsamodes, a type of cassia, XII 97.
- Balsamum, balsam of Mecca, *Commiphora opobalsamum*, XII 111-123, XIII 8, 11, 13, 15, XV 30, XVI 111-123, 135, XXIII 92.
- Banatica, a kind of grape-vine, XIV 37.
- Barba Iovis, silver-leaved wool-blade, *Anthyllis barba jovis*, XVI 76.
- Basilicon (caryon), walnut, *Juglans regia*, XV 87.
- Batis hortensis, samphire or sea fennel, *Crithmum maritimum*, and batis marina, sea-kale, *Crambe maritima*, XXI 86. See also XXI 174.
- Batrachion, celandine, *Ranunculus* sp., XXVI 106, 150, 157; = ranunculus, XXV 172; = polyanthemum, XXVII 112.
- Bdellium, vine-palm, *Borassus flabelliformis*, XII 35. Pliny is vague in this passage, and apparently uses bdellium of both tree and gum.
- Bechion, colt's foot, *Tussilago farfara*, XXVI 30. The second type, also called salvia (XXVI 31), is perhaps *Verbascum lychnitis*.
- Bellio, yellow ox-eye daisy, *Chrysanthemum segetum*, XXI 49.
- Bellis, white daisy, *Bellis perennis*, XXVI 26.
- Beta, beet, *Beta vulgaris*, XIX 86, 98, 113, 117, 118, 119, 122, 132-136, 181, 182, XX 69-72, 220, XXII 61, 143, 144, XXIV 150, XXV 44, 48, XXVI 50, 58, XXVII 22, XXVIII 209, 214, XXIX 40.
- Betulla, birch, *Betula alba*, XVI 74, 176, 209.
- Bimammia, a kind of grape-vine, XIV 41.
- Blachnon (blechnon), male fern, *Aspidium filix mas*, XXVII 78.
- Blattaria, moth mullein, *Verbascum blattaria*, XXV 108.
- Blechnon, pennyroyal, *Mentha pulegium*, XX 156.
- Blitum, primarily blite, *Amaranthus blitum*, secondarily *A. retroflexus*, *Blitum Bonus-Henricus*, and *Euxolus viridis*, XIX 99, 117, 119, XX 252.
- Boletus, mushroom, usually *Agaricus caesarius*, but probably also *Boletus edulis*, XVI 31, XXII 92, XXIII 115, XXIX 103.
- Bombycia, a kind of reed, XVI 169.
- Botane hiera = verbenaca, XXV 105.
- Botrys, usually denotes a grape cluster, but = artemisia, XXV 74, XXVII 28, 55.
- Brabilla, probably the sloe,

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- Prunus spinosa*, or the bullace, *P. insititia*, XXVII 55.
- Brace, perhaps spelt, *Triticum spelta*, otherwise a soft emmer, *T. dicoccum*, XVIII 62.
- Brassica, cabbage, *Brassica oleracea*, XIX 135, 136, 137, 143, 167, 176, XX 78-96, 127, XXII 151, XXIV 158, XXV 120, XXVI 118, XXVII 96, XXVIII 81, XXIX 106, XXX 24, 30. Brassica selinas, or "celery" cabbage, is Savoy cabbage, *Brassica oleracea sabauda*, XX 79. The wild form (e.g., XX 92) is generally *Brassica cretica*. Brassica marina in XX 96 is perhaps *Convolvulus soldanella*.
- Brathy, savin, *Juniperus sabina*, XXIV 102.
- Bratus, a tree resembling the cypress, XII 78.
- Britannica, grainless dock, *Rumex aquaticus*, XXV 20, 99, XXVII 2.
- Brochos or brochon = fruit (gum) of bdellium, XII 35.
- Bromos, oats, *Avena sativa*, XVIII 93, XXII 161.
- Brya, tamarisk, *Tamarix africana* and *orientalis*, XIII 116, XXIV 69.
- Bryon, green laver, *Ulva lactuca*, XII 108, 132, XIII 2, 137, XXIII 137, XXVII 56, XXXII 110. In XXIV 27 = sphagnos (1).
- Bryonia, bryony. (1) the black type is white bryony, *Bryonia alba*, (2) the white type, common bryony, *B. dioica*, or perhaps Cretan bryony, *B. cretica*. See XXIII 21-28 with many alternative names to each.
- Bubonion = aster, XXVII 36.
- Buceras, fenugreek, *Trigonella foenum-graecum*, XXI 37, XXIV 184.
- Bucolicon, a kind of panaces, XXV 31.
- Buconiates, a kind of grape, XIV 39.
- Buglossos, Italian alkanet, *Anchusa italica*, XXV 81, XXVI 116.
- Bulapathon, patience dock, *Rumex patientia*, XX 235.
- Bulbine (or bolbine), star of Bethlehem, *Ornithogalum umbellatum*, XIX 95, XX 107.
- Bulbus (or bolbos), the bulb of any small, onion-like plant (XIX 60, 93), or of the reed, *Arundo donax* (XVII 144), or the plant itself (XVII 87, XIX 95, XX 102), or *Pancratium maritimum* (XIX 32), but most of all the tassel-hyacinth, *Leopoldia comosa*. See XVIII 34, XIX 93, 97, 99, 109, 121, 134, XX 102-106, 107, XXI 107, XXIII 62, XXV 131, XXVIII 192, 197, XXIX 44, XXX 73.
- Bumastus, a kind of grape, XIV 15, 42.
- Bumelia, an ash, *Fraxinus excelsior*, XVI 63.
- Bunias, French turnip, *Brassica napus*, XX 21.
- Bunion, cited as a term for a kind of navew, actually probably *Bunium pumilum* or *B. bulbocastanum*, XX 21.
- Bupthalmus. In XXV 82 the yellow daisy, *Chrysanthemum coronarium*; in XXV 160 a type of house-leek, probably *Sempervivum arboreum*.
- Bupleuron, of uncertain identity, *Ammi majus*, *Bupleurum ri-*

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- gidum*, and *B. baldense* suggested, but dubious, XXII 77, XXVII 57.
- Buprestis, hare's ear, *Bupleurum protractum*, XXII 78.
- Buselinum, Cretan alexanders, *Smyrniun perfoliatum*, XX 118.
- Buxus, box-tree, *Buxus sempervirens*, VI 79, XI 46 (emend. Detlef.), XVI 70, 71, 73, 80, 92, 120, 121, 172, 183, 204, 212, 221, 226, 227, 230, 231, XVII 163, XXI 83, XXIII 28, XXX 97, XXXIV 133, XXXV 77.
- Cacalia = leontice, *Mercurialis tomentosa*, XXV 135, XXVI 29, 163.
- Cachila (v.l.) = buphthalmus, XXV 82.
- Cactos, cardeon, *Cynara cardunculus*, XXI 97.
- Cadytas, a dodder, *Cuscuta filiformis*, XVI 244.
- CaerEOFolium, chervil, *Anthriscus cerefolium*, XIX 170.
- Caesapon, a kind of wild lettuce, *Lactuca*, XX 59.
- Calabrix, perhaps buckthorn, *Rhamnus infectorius*, XVII 75.
- Calamus, (1) reed, *Arundo donax*, V 44, VI 166, XII 104-106, XIII 8, 9, 10, 11, 12, 13, 15, 18, 73, XIV 92, 107, 112, XV 30, XVI 80, 157, 159, XVII 102, 107, 114, 168, XXIX 56, XXX 104, XXXII 141; (2) as a foreign plant, sweet flag, *Acorus calamus*, V 44, XII 22, 104, XIII 8, 11, 18, 73.
- Calcetum, v.l. for chalcetum, s.v., XXVI 40.
- Calchas = buphthalmus, XXV 82.
- Calcifraga, perhaps hartstongue, *Asplenium scolopendrium*, XXVII 75.
- Calicia, a plant supposed to make water freeze, unknown, XXIV 156. See p. 110, note a.
- Callion = vesicaria, XXI 177.
- Callithrix, maidenhair spleenwort, *Asplenium trichomanes*, XXV 132, 135, XXVI 87, 147, 160.
- Callitrichon = adiantum, XXII 62.
- Caltha, perhaps marigold, *Calendula officinalis*, XXI 28.
- Calventina, a kind of grapevine, XIV 38.
- Calyx (calsa in MSS.), (1) perhaps monk's-hood, *Arum arisarum*, XXVII 58; (2) = anchusa, alkanet, *Anchusa officinalis*, XXVII 59.
- Camararium, climbing gourd, *Cucurbita longior*, XIX 70.
- Cammaron = acenitum, XXVII 9.
- Cancamum, an Arabian gum, from *Balsamodendron Katuf*, XII 98.
- Cannabis, hemp, *Cannabis sativa*, XIX 29, 63, 173, XX 259, XXV 65.
- Cantabrica, Cantabrian bindweed, *Convolvulus cantabrica*, XXV 85, 101.
- Canthareos, a kind of grapevine, XIV 75.
- Canthyllion, v.l. for anthyllion, XXVI 84.
- Canthyllis, v.l. for anthyllis, s.v., XXVI 160.
- Capnos, a kind of grape, XIV 39.
- Capnos fruticosa, XXV 156, fumitory, *Fumaria officinalis* (Littre), and capnos trunca, XXV 155, XXVI 57, *Corydalis digitata* (Littre). In XXVI 35 merely capnos.

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- Both are fumitories. See note on XXV 155. Dioscorides gives only one kind (IV 109).
- Capparis (cappari), caper, *Capparis spinosa*, XIII 127, XV 15, 117, XIX 163, XX 165-167, XXIV 97, 121, XXVII 27, 95, XXVIII 242, XXIX 80.
- Caprificus, the male fig-tree or caprifig, *Ficus carica*, XI 40, 118, XII 35, XIV 134, XV 79, 80, XVI 95, 114, 227, XVII 225, 242, 254, 256, XXIII 126-130, XXXIV 133.
- Carbonica, a kind of grape-vine, XIV 43.
- Carcinoteron = polygonus, knot-grass, *Polygonum aviculare*, XXVII 113.
- Cardamomum, cardamom, esp. *Elettaria cardamomum*, XII 50, XIII 8, 12, XV 30.
- Cardamum, garden cress, *Lepidium sativum*, XIX 118.
- Carduus, (1) a thistle-like growth, XII 72; (2) a generic term for thistles, XVIII 153, XXI 91, 94, 96; (3) the golden thistle, *Scolymus hispanicus*, XX 262; (4) the cardoon, *Cynara cardunculus*, wild or cultivated, XIX 55, 152-153, XX 262.
- Careum, caraway, *Carum carui*, XIX 164.
- Caro(s) = hypericon, XXVI 86, 119, 130.
- Carphos = fenum Graecum, XXIV 184.
- Carpinus, hornbeam, *Carpinus betulus*, XVI 67, 73, 74, 75, 193, 206, 226, 230, XVII 201, XXVIII 191.
- Carpophyllon, kind of laurel, XV 131.
- Caryites, a kind of tithymalus, XXVI 66.
- Caryon = iuglans, XV 87.
- Caryophyllon, dried flower-bud of clove-tree, *Eugenia caryophyllata*, XII 30.
- Casia (cassia), cassia, the bark of various species of *Cinnamomum*, perhaps especially *C. iners*, *C. zeylanicum*, and *C. tamala*, X 4, XII 82, 85, 95-98, 99, XIII 10, 11, 13, 18, XIV 107, XVI 136, XXI 70, XXV 175, XXIX 55, XXXVII 204. As a term for a native European plant, probably common marjoram, *Origanum vulgare*, as in XII 98, XVI 136, XXI 70, XXVII 74. In XXI 53 a term for cneorum.
- Casignete = hestiatensis, XXIV 165.
- Cassiopica filix, "fern of Cassiope," unknown, XXVII 80.
- Castanea, chestnut-tree, *Castanea vesca*, XIII 110, XV 28, 92, 93, 112, 114, XVI 20, 74, 76, 98, 138, 206, 212, XVII 59, 122, 136, 147-150, XXIII 150.
- Catanance, a vetch, *Ornithopus compressus*, XXVII 57.
- Caucalis, of uncertain identity, perhaps *Tordylium apulum*, *T. officinale*, *Caucalis grandifolia*, or *Pimpinella saxifraga*, XXI 89, XXII 83, XXVI 25 (v.l.).
- Caulis, in Pliny generally synonymous with brassica, as a term for a particular type, kale, *Brassica oleracea acephala*, XIX 54, 57, 136, 139.
- Caulodes, kale, *Brassica oleracea acephala*, XX 79.
- Cedrelate, Greek juniper, *Juniperus excelsa*, XIII 53, XXIV 17.
- Cedrosis = vitis alba, XXIII 21.

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- Cedrus*, chiefly prickly juniper, *Juniperus oxycedrus*, XII 125, XIII 2, 52, 53, 100, XIV 112, 122, XV 28, XVI 62, 73, 80, 90, 91, 137, 186, 187, 197, 203, 207, 212, 213, 216, XVII 236, XXIV 17-20, 54, XXVIII 118, XXXI 98, XXXII 76, 135, XXXIV 177. In XIII 52 the Phoenician type of *cedrus* is the Phoenician cedar, *Juniperus phoenicea*, and the Syrian type is the Syrian cedar, *J. excelsa*. *Cedrus magna* = cedrelate, XXIV 17.
- Cedrys*, juniper, *Juniperus communis*, XIII 53.
- Celthis*, nettle-tree, *Celtis australis*, XIII 104.
- Cemos*, of uncertain identity, perhaps *Plantago cretica*, *Micropus erectus*, or everlasting, *Gnaphalium leontopodium*, XVII 57.
- Centauris*, a kind of centaury, *Erythraea centaurium*, XXV 69, XXVI 104.
- Centaurium*, centaury, (1) *maius*, *Centaurea salonitana* or *C. centaurium*, XIX 186, XX 52, XXV 66, 100, 142, XXVI 27, 33, 41, 54, 110, 123, 137, 140, 153; (2) *minus*, *Gentiana centaurium*, XXV 68, 142, 164, XXVI 54, 104, 126, 140, 153, 185, XXVII 47. See also XIX 186, XX 52, XXV 33, XXVI 32, XXVII 143.
- Centigranum triticum*, hundred-grain wheat, XVIII 95.
- Centum capita*, eryngo, *Eryngium campestre*, XXII 20.
- Centunculus* = clematis, XXIV 138. See also XXVI 105, 114.
- Cepa* (caepa), onion, *Allium cepa*, II 10, XIII 133, XIX 99-107, 111, 115, 117, 121, XX 39-43, XXIII 147, 148, XXV 26, 53, XXIX 108, 133, 134, XXX 30, XXXVI 179. The Ascalonian onion (*cepa Ascalonia*) (XIX 101), often identified as the shallot, *Allium ascalonicum*, is actually a form of the onion.
- Cepaea*, an orpine, *Sedum cepaea*, XXVI 84.
- Cerais*, a type of wild radish, *Raphanus raphanistrum*, XIX 82.
- Cerasus*, cherry-tree, more especially the sweet cherry, *Prunus avium*, and the sour cherry, *P. cerasus*, but also the mahaleb, *P. mahaleb*, and the bog cherry, *P. padus*, XII 14, XIII 66, 105, XV 57, 101, 102, 104, 105, 109, 111, 113, XVI 74, 104, 124, 125, 126, 138, 181, 183, 210, 219, XVII 65, 88, 99, 110, 135, 234, 260, XVIII 232, XXIII 141, XXIV 106, XXXVII 42.
- Ceratia*, carob-tree, *Ceratonia siliqua*, XXVI 52.
- Ceratitis*, horned poppy, *Glaucium flavum*, XX 206.
- Ceraunion*, a truffle, probably *Tuber aestivum*, XIX 36.
- Cerinth*, wax-flower, *Cerintho major*, XXI 70.
- Ceronia*, carob-tree, *Ceratonia siliqua*, XIII 59.
- Cerrus*, Turkey oak, *Quercus cerris*, XVI 17, 19, 20, 25, 218, 230, XXIV 13, XXX 92.
- Cestros*, betony, *Betonica officinalis*, XXV 84.
- Chalceos*, yellow fish thistle, *Carlina corymbosa*, XXI 94.
- Chalcetum*, unknown, perhaps *Valeriana locusta*, XXVI 40.

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- Chamaeacte, dwarf elder, *Sam-
bucus ebulus*, XXIV 51, XXVI
120.
- Chamaecerasus, dwarf cherry-
tree, *Prunus prostrata*, XV
104.
- Chamaecissos, (1) ground-ivy,
Glecoma hederacea, XVI 152,
XXIV 82, 135, XXVI 54;
(2), sowbread, *Cyclamen euro-
paeum*, XXV 116.
- Chamaecyparissos, "ground-
cypress," lavender cotton,
Santolina chamaecyparissus,
XXIV 136.
- Chamaedaphne, "dwarf laurel,"
periwinkle, *Vinca herbacea*,
or double-tongue, *Ruscus hy-
pophyllum*, XV 131, XXI 68,
172, XXIV 132.
- Chamaedrys, wall-germander,
Teucrium chamaedrys, XIV
112, XXIV 130.
- Chamaeleon, (1) pine-thistle,
Atractylis gummifera; (2) the
black type probably *Cardo-
patium corymbosum*, XXI 94,
XXII 45-47, 85, 157, XXIII
75, XXVII 64, 143, XXVIII
115, 162, XXX 30.
- Chamaeleuce, colt's-foot, *Tussi-
lago farfara*, XXIV 135,
XXVI 30.
- Chamaemelon, wild chamomile,
Matricaria chamomilla, XXII
53, 157.
- Chamaemyrsine, "dwarf myr-
tle," butcher's broom, *Ruscus
aculeatus*, XV 27, XXIII 88,
165.
- Chamaepeuce, probably fish-
bone thistle, *Chamaepeuce
mutica*, XXIV 136. Littré
says *Serratula chamaepeuce*,
Sprengel *Stachelina chamae-
peuce*.
- Chamaepitys, "ground pine,"
perhaps yellow bugle, *Ajuga
chamaepitys*, or herb ivy, *A.
iva*, XIV 112, XXI 175,
XXIV 29. Littré suggests
herb ivy, *Ajuga iva*, *Passerina
hirsuta*, and chia bugle, *Ajuga
chia*. In XXVI 85 = hyperi-
con.
- Chamaeplatanus, "dwarf
plane," a stunted form of the
Oriental plane, *Platanus ori-
entalis*, XII 13.
- Chamaerops, (1) dwarf-palm,
Chamaerops humilis, XIII 39,
XXVI 42, 137; (2) = chamae-
drys, XXIV 130.
- Chamaesyce, "ground fig,"
wolf's milk, *Euphorbia chamae-
syce*, XXIV 134.
- Chamaezelon = quinquefolium,
XXV 109; = gnaphalium,
XXVII 88.
- Chamelaea, "dwarf olive,"
mezerlon, *Daphne mezereum*,
or possibly spurge olive,
D. oleoides, XIII 114, XIV
112, XV 24, XXIV 133; in
XXV 79 an herb rather than
a shrub, of uncertain identity.
- Characias, (1) a type of spurge,
perhaps wood spurge, *Euphor-
bia Sibthorpii*, XXVI 62-65,
71; (2) a species of reed, XVI
168.
- Characites, probably = chara-
cias (1), XXVI 118, 146.
- Chelidonia, great celandine,
Chelidonium majus, VIII 97,
XXV 89, 90, 101, 142, 170,
XXVI 24, 141, 152. The
small type in XXV 89 is
probably *Ranunculus ficaria*.
- Chenamyche = nyctegreton,
XXI 62.
- Chiliodynamia = polemonia,
perhaps Greek valerian, *Pole-
monium caeruleum*, or a type

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- of St. John's wort, *Hypericum olympicum*, XXV 64.
- Chironia = vitis nigra, XXIII 27, XXV 34. In XXV 165, XXVI 139 perhaps rather = the panaces called chironium.
- Chironium = centaurium, XXI 66; = panaces, XXV 32, 99, 131, in this case elecampane, *Inula helenium*.
- Chondris = pseudodietamnium, XXV 93, XXVI 49.
- Chondrylla, gum succory, *Chondrilla juncea*, XXI 89, 105.
- Chreston = cichorium, XX 74.
- Chrysallion = psyllion, XXV 140.
- Chrysanthemon, (1) probably the yellow daisy, *Chrysanthemum coronarium*, in XXVI 87; (2) = heliochrysus in XXI 168.
- Chrysippios, plant named after Chrysippus, its discoverer, unknown, XXVI 93.
- Chrysitis = chrysocome, XXI 50.
- Chrysocarpum, a golden-berried type of ivy, *Hedera helix*, XVI 147, XXIV 77.
- Chrysocome, immortelle, *Helichrysum orientale*, or possibly goldylocks, *Chrysocoma lino-syris*, XXI 50, 148.
- Chrysolachanum, orach, *Atriplex hortense*, XXVII 66.
- Chrysomelum, quince, *Cydonia vulgaris*, XV 37.
- Cicer, chickpea, *Cicer arietinum*, XVI 110, XVII 56, XVIII 10, 50, 51, 57, 58, 59, 60, 124, 125, 152, 154, 155, 165, 185, 198, 307, 308, XIX 179, XXII 148-150, XXVI 124, XXVII 96, 98, 121.
- Cicercula, a vetch, probably chickling vetch, *Lathyrus sativus*, XVIII 103, 124, 198, 304, XIX 186, XXII 148.
- Cichorium, chicory, *Cichorium intybus* or *divaricatum*, XIX 129, XX 73, 74, XXI 88, 101, XXVII 55.
- Cici, castor-oil tree, *Ricinus communis*, XII 25, XV 25, XVI 85, XXIII 83, 84, 89, XXVIII 173.
- Cicuta, hemlock, *Conium maculatum*, XIV 58, 138, XVII 55, XVIII 47, XIX 124, XX 131, XXII 31, XXIII 30, 43, XXIV 24, 154, 158, XXV 131, 151-154, XXVI 101, 108, 121, 122, 131, 136, 145, XXVII 50, 70, XXVIII 74, 129, 158, 161, XXX 132.
- Cinara, probably the dog-rose, *Rosa canina*, in VIII 101, although commonly the cardoon, *Cynara cardunculus*.
- Cinerea, a kind of grape, XIV 42.
- Cinnamomum (cinnamon), the bark of various species of *Cinnamomum*, perhaps especially *C. incers*, *C. zeylanicum*, and *C. tamala*, VI 174, X 55, XII 51, 82, 85-95, 99, XIII 10-12, 15, 18, XIV 107, XV 30, XVI 135, XXI 29, 51, XXIV 102, XXIX 55, XXXVII 204. In XII 135 = comacum.
- Circaea, a plant used as a charm, perhaps *Asclepias nigra*, black swallow-wort, *Vincetoxicum nigrum*, or enchanter's nightshade, *Circaea lutetiana*, XXVII 60.
- Circaeon = mandragoras, XXV 147.
- Cirsion, a kind of thistle, perhaps *Carduus parviflorus*, or cotton thistle, *Onopordon acanthium*, XXVII 61.

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- Cissanthemos, perhaps perfoliate honeysuckle, *Lonicera caprifolium*, but many other suggestions have been made, XXV 116, XXVI 34, 76, 156, 161.
- Cissos erythranos, "red-berried ivy," *Hedera helix*, XXIV 82.
- Cisthos, rock-rose, *Cistus villosus* ("male") and *C. salvifolius* ("female"), XXIV 81, XXVI 49.
- Citrus, (1) citron-tree, *Citrus medica*, XII 15, XIII 103, XV 47, XVI 107, XVII 64, XXIII 105; (2) thyme-wood, *Callitris quadrivalvis*, V 12, XIII 2, 91, 95, 99, 100, 101, 102, XV 28, 110, XVI 66, 68, 69, 129, 185, 231, 233, XXXIII 146, XXXVII 204. See also Thya.
- Clema = polygonon, XXVII 113.
- Clematis, various types of bindweed, such as bearbind, *Convolvulus arvensis*, XXIV 84, 138-141; in XXIV 139 perhaps *C. scammonia*.
- Clematitis (clematis MSS.), a kind of aristolochia, probably *Aristolochia clematitis*, XXV 95.
- Cleonicon, *v.l.* for cleopiceton = clinopodium, XXIV 137.
- Cleopiceton = clinopodium, XXIV 137.
- Clinopodium, wild basil, *Calamintha clinopodium*, XXIV 137.
- Clymenus, scorpion's tail, *Scorpiurus vermiculata*, XXV 70, XXVI 41, 77, 111, 131, 140.
- Cnecos, cultivated, safflower, *Carthamus tinctorius*; wild, the same or perhaps *Carthamus leucocaulos* or blessed thistle, *Cnicus benedictus*, XXI 94, 184. In XXI 90 one of the two wild types is *Carthamus lanatus*.
- Cneorum, widow-wail, *Daphne gnidium*, XXI 53, 55; in XIII 114 perhaps mezerlon, *Daphne mezereum*.
- Cnestor, mezerlon, *Daphne mezereum*, XIII 114.
- Cnidinum, oil from stinging nettle, *Urtica urens*, XV 31.
- Coagulum terrae, unknown, XXVII 67.
- Cobios = dendroides, XXVI 71.
- Coccolobis, a kind of grape-vine, XIV 30.
- Coccus Cnidius, berry of the shrub cneorum, *Daphne gnidium*, XXVII 70.
- Coccygia, a kind of sumach, perhaps wig-tree, *Rhus cotinus*, XIII 121. *Coccus gnidius* and *Daphne gnidium* have also been suggested.
- Coea or coix, doum-palm, *Hyphaene thebaica*, XIII 47.
- Colocasia, taro, *Colocasia antiquorum*, XXI 174; in XXI 87 apparently erroneously applied to the Indian lotus, *Nelumbo nucifera*.
- Colocynthis, colocynth, *Citrullus colocynthis*, XX 14-17.
- Columbina, a kind of grape-vine, XIV 40.
- Comacum, perhaps spice-nutmeg, *Myristica fragrans*, or ailanthis, *Ailanthus malabarica*, XII 135, XIII 18.
- Comaros, Greek for arbutus-tree, *Arbutus unedo*, wrongly taken by Pliny to be the fruit, XV 99.
- Combretum, a reed, perhaps *Juncus maximus*, XXI 30, 133.

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- Come = tragopogon, XXI 89, XXVII 142.
- Commagene, an unknown plant, XXIX 55.
- Condriion = condrilla = chondrilla, gum succory, *Chondrilla juncea*, XXII 91.
- Condurdum, perhaps a soapwort, cow basil, *Saponaria vaccaria*, XXVI 26.
- Conferva, probably some species of *Conferva*, a water-plant, XXVII 69.
- Conseminea, a kind of grapevine, XIV 36.
- Consiligo, lungwort, *Pulmonaria officinalis*, XXV 86, XXVI 38.
- Convolvulus, hedge bind-weed, *Convolvulus sepium*, XVII 264, XXI 23.
- Conyza, (1) viscous elecampane, *Inula viscosa*; (2) fleabane, *I. pulicaria*, XIX 165, XXI 53, 58, 70, XXVI 160.
- Coracesia, a magical plant that makes water freeze, XXIV 156. See p. 110, note a.
- Corchorum (-us, -os), (1) blue pimpernel, *Anagallis caerulea*, and red pimpernel, *A. phoenicea*, XXV 144 (assuming acoron to be an error for corchoron); (2) Jew's mallow, *Corchorus olitorius*, XXI 89, 183.
- Coriandrum, coriander, *Coriandrum sativum*, XII 109, XVIII 13, XIX 117, 118, 119, 123, 170, 181, XX 52, 57, 80, 81, 87, 102, 149, 170, 216-218, 256, XXIII 16, 43, XXV 34, 111, 151, 156, 172, XXVI 113, 133, XXVII 138, XXIX 60, XXX 90, XXXII 78, 94.
- Coriarius, a type of sumach used in tanning leather, perhaps myrtle-leaved tanner's tree, *Coriaria myrtifolia*, XXIV 91.
- Corinthia = minyas, XXIV 157.
- Coris, *v.l.* for caro, XXVI 86.
- Corissum = hypericon, XXVI 85, 129, 164.
- Cornus, primarily the cornelian cherry, *Cornus mas*, secondarily the cornel, *C. sanguinea*, XIV 103, XV 101, 105, 109, XVI 74, 97, 103, 105, 183, 186, 206, 211, 226, 228, XVII 201, XXI 72, XXIII 151, XXIV 150.
- Coronarium, a kind of grape, XIV 42.
- Coronopus, hartshorn, *Plantago coronopus*, XXI 99, XXII 48.
- Corruda, wild asparagus, perhaps especially *Asparagus acutifolius*, XVI 173, XIX 54, 145, 151, XX 110.
- Corylus (corulus), the hazel, *Corylus avellana*, XVI 74, 75, 178, 228, XVII 67, 151, 240, XXXI 83.
- Corymbia, a kind of ferula, XIX 175.
- Corymbites = platyphyllum, a kind of tithymalus, XXVI 70.
- Costus, costus, *Saussurea lappa*, XII 41, 50, XIII 15, 16, 18, XIV 107, XXII 118, XXVII 128.
- Cotinus, Venetian sumach, *Rhus cotinus*, XVI 73; but usually a term for a wild olive-tree.
- Cotonea, secondary name for halus, XXVI 42.
- Cotoneum, quince, *Cydonia vulgaris*, XII 38, 103, 124, XIII 11, 110, XV 37-38, 49, 58, 60, 110, XVII 67, 68, 75, 136, XIX 34, 92, XXI 38, 142, XXII 122, 142, 143, 144, 146,

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- XXIII 97, 100-103, XXIV 29, 129, XXVII 55, 116, XXX 50, XXXIV 133.
- Cotyledon, navelwort, *Cotyledon umbilicus*; the other kind perhaps *C. sterilis* or *Saxifraga media*, XXV 159, 164, XXVI 32, 80, 91, 106, 119, 121, 126, XXVIII 242.
- Cracca, a kind of wild vetch, possibly *Vicia cracca*, XVIII 142.
- Crambe, in Greek, a generic term for cabbage; in XX 79 a term for a form of cultivated cabbage, *Brassica oleracea*.
- Crataegis, of uncertain identity, perhaps by error for crataegonon, XXVI 99.
- Crataegonon (-os), fleawort, *Polygonum persicaria*, XXVII 62, 63 (v.l.).
- Crataegos=aquifolium, XXVII 63; but properly is a type of thorn, perhaps *Crataegus Hel-dreichii*.
- Cremnos agrios, wild samphire, *Crithmum maritimum*, XXV 155, XXVI 94.
- Crepis, ox-tongue, *Helminthia echinoides*, XXI 99.
- Crethmum (-os), samphire, *Crithmum maritimum*, XXVI 82, 158, 160, XXVII 135.
- Cretica, a type of aristolochia, equated with clematitis, but probably rather *Aristolochia cretica*, XXV 95.
- Crinon, a lily, *Lilium* sp., XXI 24.
- Crista = alectoros lophos, i.e., yellow rattle, *Rhinanthus major*, XXVII 40.
- Crocis, unknown, possibly catch-fly silene, *Silene muscipula*, XXIV 167.
- Crocodileon, sea-holly, *Eryngium maritimum*, or perhaps teasel, *Dipsacus fullonum*, XXVII 64.
- Crocus, saffron, *Crocus sativus*, as a wild plant, the spring crocus, *C. vernus*, XII 129, XIII 5-11, 12, 16, 18, 21, 95, XIV 107, 135, XVII 38, XIX 98, 100, XX 187, 208, XXI 31-34, 36, 53, 63, 67, 89, 106, 118, 131, 137-139, XXII 104, XXIII 8, 84, 97, 108, 136, XXIV 78, 129, 165, 166, XXV 90, 102, 169, XXVII 103, 142, XXVIII 94, 219, 245, 248, XXIX 39, 42, 120, 138, XXX 126, XXXII 58, XXXIV 114, XXXVI 145, 147, 158, 177, XXXVII 185.
- Croton = cici, XV 25, XVI 85.
- Crystallion = psyllion, XXV 140.
- Cuci, doum-palm, *Hyphaene thebaica*, XIII 62, XV 114.
- Cucullus (v.l. cucubalus) = strychnos, XXVII 68.
- Cucumis, usually the cucumber, *Cucumis sativus*; as a wild form, the squirting cucumber, *Ecballum elaterium*; also used generically to include the colocynth, the melon, and the watermelon, IX 3, XII 71, XIV 110, XIX 61, 64-70, 71, 74, 117, 118, 144, 181, 184, 186, XX 3-10, 12, 103, 194, 237, 250, XXII 51, 89, XXIII 143, XXVI 105, 121, XXVII 9, 23, XXVIII 219, XXXII 99, 147, XXXVII 58.
- Cucurbita, the large gourd, *Cucurbita maxima*, and the bottle-gourd, *Lagenaria vulgaris*, XIX 61, 69-74, 117, 118, 181, 186, XX 13, XXV 113, XXVIII 205, XXXII 123.

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- Culix*, unknown; flea-wort, *Plantago psyllium*, and *Inula pulicaria* have been suggested, XIX 68.
- Cuminum*, cummin, *Cuminum cyminum*, XVIII 96, XIX 119, 120, 153, 160, 176, XX 10, 82, 108, 111, 117, 137, 159, 161, 162, 163, 213, 218, 237, XXII 59, 159, XXIII 16, XXV 111, 136, XXVI 41, 87, 157, XXVII 33, 138, XXVIII 175, 205, 208, 211, XXIX 47, XXXI 119.
- Cunila*, probably usually summer savory, *Satureia hortensis*, perhaps in some instances *S. thymbra*, the cunila gallinacea of XX 170, probably sweet winter marjoram, *Origanum heracleoticum*, X 195, XIV 105, XIX 117, 118, 165, 177, 181, 182, 184, 186, XX 168-173, 175, XXI 70, XXV 99, XXVIII 187, XXXII 126, 130. Ox cunila (cunila bubula) may be *origanum*, or pennyroyal, VIII 98, XIX 165, XX 169, XXV 99, XXVI 42, 148, XXVII 41.
- Cunilago*, a kind of cunila. See XIX 165, 186 and XX 171, with XXVIII 151. In XXI 53 = conyza.
- Cupressus*, the cypress, *Cupressus sempervirens*, XI 77, XIII 9, 53, 95, XIV 112, 122, XV 28, XVI 31, 41, 76, 79, 90, 104, 115, 125, 128, 139-142, 211-215, 221, 223, 236, XVII 60, 71, 73, 89, 151, 174, 236, 247, XVIII 158, XX 16, XXII 75, 97, XXIII 88, 139, XXIV 15, 32, 102, 135, XXVI 135, 161. *Cupressus Cretica* = brathy, XXIV 102.
- Cyamos* (i.e., κύαμος Ἀιγύπτιος), the Indian lotus, *Nelumbo nucifera*, XXI 87; cf. XVIII 121-122.
- Cyanus*, blue cornflower, *Centaurea cyanus*, XXI 48, 68, 147.
- Cyclaminus* (-os, -on), cyclamen, *Cyclamen* sp., XXI 51, 64, XXIV 1, XXV 114-116, 122, 125, 133, 134, 143, XXVI 54, 90, 100, 106, 120, 124, 129, 144, 149, 155, 161, 163, XXVII 9, XXVIII 164, 203, XXIX 47.
- Cydneum*, quince, *Cydonia vulgaris*, XV 37.
- Cyix*, a bulbous plant, unidentified, XIX 95.
- Cyma*, the spring sprouts of cabbage (XVIII 127, XIX 137-138, XXIV 119) or specifically broccoli, *Brassica cymosa* (XX 90).
- Cynacantha*, identity uncertain, perhaps = cynosbatos, s.v., XI 118.
- Cynapanxis* = cynosbatos, XXIV 121.
- Cynas*, "dog's hair," a fibre plant of Arabia, perhaps *Bombas ceiba*, XII 39.
- Cynocephalia*, perhaps a species of snapdragon, *Antirrhinum*, XXX 18.
- Cynoglossos*, hound's tongue, *Cynoglossum officinale* and *C. pictum*, XXV 81.
- Cynoides* = psyllion, XXV 140.
- Cynomorion* = orobanche, XXII 162.
- Cynomyia* = psyllion, XXV 140.
- Cynops*, "dog's eye," a v.l. for *achlynops*, XXI 89, 101.
- Cynorhodon* (cynorrhoda), dog-rose, *Rosa canina*, VIII 153, XXI 24, XXIV 121, XXV 17, 18, 125, XXIX 94.

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- Cynosbatos, (1) white rose, *Rosa sempervirens*, XVI 180; (2) black-currant, *Ribes nigrum*, XXIV 121; (3) secondary name for cappari, XIII 127, XXIV 121.
- Cynosorchis, a species of *Orchis*, XXVII 65, probably identical with the orchis satyrios of XXVI 96.
- Cynozolon, black type of chamaeleon, *Cardopatum corymbosum*, XXII 47.
- Cyparittias, a type of spurge, perhaps *Euphorbia aleppica*, XXVI 70.
- Cyperus (or cypirus), basically a term for *Cyperus* sp., the exact species unidentifiable without descriptive details, extended sometimes to similar plants, as in XXI 107, 111, 115 to gladiolus, corn-flag, *Gladiolus segetum*. See XII 42, 43, XIII 13, 18, XVII 95, 209, XXI 88, 107, 111, 115, 116, 117, 118, XXII 40, XXV 165.
- Cypira, an unidentified Indian plant, XXI 117.
- Cypros (-us), henna plant, *Lawsonia inermis*, XII 30, 108, 109, 121, XIII 9, 11, 12, 13, 18, XXIII 90, XXIV 74, XXIX 106, XXX 21, 110, 126, XXXV 195.
- Cytisus, tree-medick, *Medicago arborea*, XII 20, XIII 130-134, XVI 92, 186, 204, XVII 52, 239, XVIII 145, 148, 165, XXI 70, XXVII 82.
- Dactylus, (1) dog's-tooth grass, *Cynodon dactylon*, XXIV 182; (2) a kind of grape, XIV 15.
- Damasonion = alisma, XXV 124, XXVI 25, 92, 143.
- Danae, a type of laurel, XV 131.
- Daphnidis, a type of cassia, XII 98.
- Daphnoides, (1) mezerlon, *Daphne mezereum*, XV 132, XXIII 158; (2) an Egyptian type of clematis, XXIV 141.
- Daucos (-um), a generic term applied to several plants, including the wild carrot (*Daucus carota* subsp. *carota*), various species of *Athamanta*, *Malabaila aurea*, and *Bupleurum fruticosum*. See XIV 111, XIX 89, XXV 110, 112, 119, 134, XXVI 28, 35, 41, 45, 74, 83, 88, 89, 110, 128, 137, 157, XXXII 101. In XXV 110-112 four kinds are mentioned, but can be reduced to two or at most three.
- Dendroides, a kind of spurge, wolf's milk, *Euphorbia dendroides*, XXVI 71.
- Dialeucon, a kind of saffron, *Crocus sativus*, XXI 33.
- Diaxylos = aspalathos (1), XXIV 112.
- Dictamnus, in XX 156 a secondary name for a wild type of pennyroyal, *Mentha pulegium*.
- Dictamnus, dittany, *Origanum dictamnus*, VIII 97, XIV 111, XXV 92-94, 101, XXVI 79, 142, 153, 161.
- Dicta = dictamnus, XXIV 164.
- Digitellum, house-leek, *Sempervivum arboreum*, XVIII 159, XXV 160, XXVI 163.
- Dionysonymphas = hestiatensis, XXIV 165.
- Dios balanum, chestnut, *Castanea vesca*, XV 93.
- Diospyron, usually the fruit of the false lote-tree, *Diospyrus*

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- ebenum*, but in XXVII 98 = lithospermon.
- Dipsacos, teasel, *Dipsacus fullo-nium*, XXVII 71.
- Dodecatheon, probably common primrose, *Primula acaulis*, XXV 28, XXVI 107.
- Dolichos, black-eyed cowpea, *Dolichos melanophthalmus*, XVI 244.
- Donax, reed, *Arundo donax*, XVI 165, XXIV 86, XXXII 141. In XXXII 151 not the plant, but the razor-shell.
- Doripetron = leontopodion, XXVI 52.
- Doris = pseudoanchusa, XXII 50.
- Dorycnion (-um), thorn-apple, *Datura stramonium*, or metel-nut, *D. metel* XXI 179, XXIII 30, XXVIII 74, 129, 158, XXXII 58, 59, 97. In other authors, also denotes *Convolvulus oleaeifolius*, *Melissa officinalis*, and *Anacyclus pyrethrum*.
- Drabe (emend. Detlef.), Arabian mustard, *Lepidium draba*, XXVII 73.
- Dracontias, a type of wheat, perhaps poulard, *Triticum turgidum*, XVIII 64.
- Dracontium (-ion), generic term for various types of arum, especially the edderwort, *Arum dracunculus*, and the Italian arum, *A. italicum*, XXIV 142, XXV 175, XXVIII 151, three types described in XXIV 150.
- Dracunculus, essentially the Latin equivalent of dracon-tion, and used in the same way, XXIV 89, 142, 149, XXV 18, XXXII 148.
- Druppa, a half-ripe olive, XII 130, XV 6, 26, XVII 230.
- Dryopteris, a fern similar to felix, XXVII 72.
- Duracinum, a hard-skinned or hard-berried type of peach, *Amygdalus persica*, XV 39.
- Ebulum, dwarf elder, *Sambucus ebulus*, XVII 55, XVIII 34, XXV 119, 164, XXVI 81, 119, 120.
- Echinopus, a prickly plant, probably a type of broom, *Genista acanthoclada*, XI 18.
- Echios, two kinds, perhaps small-flowered catchfly, *Silene gallica*, and red-flowered viper's bugloss, *Echium rubrum*, or *E. plantagineum*, XXV 104. Echios = personata *ibid.* is perhaps common burdock, *Arctium lappa*.
- Echis = pseudoanchusa, XXII 50.
- Echites, a doubtful reading in XXIV 139, where Detlefsen and Mayhoff read aetites, a type of clematis. See Clematis.
- Ectomon, black hellebore, *Hel-leborus niger*, XXV 51.
- Elaphoboscon, parsnip, *Pastin-aca sativa*, XXII 79, XXV 92.
- Elate, silver-fir, *Abies cepha-lonica* or *pectinata*, XXIX 56. In XXIII 99 given as a term for the dwarf-palm, *Chamae-rops humilis*, but actually a term for the cabbage of this palm; in XII 134 the term in this sense misapplied to the fir; in XXVI 81 perhaps a MS. error.
- Elatine, cankerwort, *Linaria spuria*, XXVI 82 (emend. Urlichs), XXVII 74.
- Elelisphacus, a sage, but of uncertain identity, perhaps *Salvia officinalis*, *S. triloba*,

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- S. calycina*, or *S. pomifera*, XIV 111, XXII 146, XXIII 145, XXV 120, XXVI 150.
- Elleborine, rupture-wort, *Herniaria glabra*, XXVII 76.
- Elleborum. See Helleborum.
- Emarcus, a kind of grape-vine, XIV 32.
- Emboline = epicactis, XIII 114.
- Empetros = calcifraga, perhaps hartstongue, *Asplenium scolopendrium*, XXVII 75.
- Enchrysa = onochilon, XXII 51.
- Enneaphyllon, perhaps toothwort, *Dentaria enneaphylla*, XXVII 77.
- Enthryscum, a species of chervil, *Scandix australis*, XXI 89, XXII 81.
- Ephedra (-on, -um) = anabasis, XXVI 36; mentioned, XXVI 125; = equisaetum, XXVI 133. See also Hippuris.
- Ephemeron, a poisonous plant, meadow saffron, *Colchicum autumnale*, XXV 170, XXVI 122, XXVIII 160.
- Epicactis (probably by error for epitactis), rupture-wort, *Herniaria glabra*, XIII 114, XXVII 76.
- Epimedion, an unknown plant which Pliny says never flowers. It has been identified with *Marsilea quadrifolia*, and moonwort, *Botrychium lunaria*, XXVII 76.
- Epipetron, of uncertain identity, perhaps the house-leek, *Sempervivum tectorum* or *araboreum*, or a type of stonecrop, *Sedum rupestre* or var. *anopetalum*, XXI 89.
- Epithymum, a parasitic plant on thyme, clover dodder, *Cuscuta epithymum*, XXVI 55, 56, 106, 130.
- Equisaetis (-um), horse-tail, *Equisetum arvense* or *maximum*, XVIII 259, XXVI 132-133.
- Eranthemis = anthemis, XXII 53, a species of *Anthemis*.
- Ereuthodanum = erythrodanum, madder, *Rubia tinctorum*, XXIV 94.
- Erica, heath, *Erica arborea*, XI 41, XIII 114, XXIV 64; = myrice, XXIV 67.
- Erigeron, groundsel, *Senecio vulgaris*, XXII 133, XXV 167, XXVI 81, 101, 130, 145, 163.
- Erineos, wild fig-tree, *Ficus caprificus*, XXIII 131.
- Eriphia, unknown, probably a mistake of Pliny's, XXIV 168.
- Erithales, white stone-crop, *Sedum album*, XXV 160.
- Eruca, rocket, *Eruca sativa*, X 182, XIX 77, 117, 123, 154, 168, 169, 171, 181, 185, XX 19, 125-126, XXII 158, XXV 168, XXVI 57, XXVII 109, XXVIII 119, XXX 101.
- Ervilia, a type of chick-pea, *Cicer arietinum*, or perhaps chickling vetch, *Lathyrus sativus*, XVIII 58, 98, 143, XIX 47, XXI 70.
- Ervum, bitter vetch, *Ervum ervilia*, XIII 130, XVII 56, 240, XVIII 57, 59, 103, 124, 139, 155, 156, 198, XIX 179, XX 20, 264, XXII 29, 151-153, 162, XXIII 26, 127, XXVI 60, 63, XXVII 11, 118, XXVIII 65.
- Erynge or eryngium, eryngo, *Eryngium campestre*, XXI 91, 94, XXII 18-24. See holly, *E. maritimum*, is apparently described in XXII 19.

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- Erysimon = irio, XVIII 96, XXII 158.
- Erysisceptrum = aspalathos (1), XII 110. Mentioned also in XXIX 56.
- Erysithales, in XXVI 137 perhaps *Cnicus erysithales*; in XXV 160 an emend. for erithales, s.v.
- Erythraicon, a kind of satyrion, fritillary, *Fritillaria gracca*, XXVI 97.
- Erythranus, red-berried ivy, *Hedera helix*, XVI 147, XXIV 82.
- Erythrocomus, a type of pomegranate-tree, *Punica granatum*, XIII 113.
- Erythrodanum, madder, *Rubia tinctorum*, XXIV 94, XXVI 89.
- Erythron = dorycnion, XXI 179.
- Escaria, a kind of grape, XIV 42.
- Etesiaca, a kind of grape-vine, XIV 36.
- Euclea, eucليا or euplia, unknown, possibly Pliny has mistaken Greek *εὐκλεια* (glory) for a plant, XXV 130.
- Eugalacton = glaux, wart cress, *Coronopus procumbens*, XXVII 82.
- Eugenia, a kind of grape-vine, XIV 25, 46.
- Euonymos, spindle-tree, *Euonymus europaeus*, XIII 118.
- Eupatoria, agrimony, *Agrimonia eupatorium*, XXV 65, XXX 121.
- Eupetalon, spurge laurel, *Daphne mezereum*, XV 132.
- Euphorbea (-eum), ancient milk-wort, *Euphorbia antiquorum*, V 16, XXV 77, 143, 145, XXVI 54, 118, XXVII 2. See also Spina.
- Euphrosynum = buglossos, XXV 81.
- Euplia, unknown. See Euclea.
- Euripice, unknown reed, XXI 119.
- Euthalon, v.l. for eupetalon, s.v.
- Eutheriston, "easily harvested," a variety of balsam-tree, *Commiphora opobalsamum*, XII 114.
- Euzomon, rocket, *Eruca sativa*, XX 126.
- Exacum, type of centaureum, XXV 68.
- Exedum, unknown, possibly tanner's sumach, *Rhus coriaria*, XXIV 175.
- Exonychon, gromwell, *Lithospermum officinale*, XXVII 98.
- Faba, field bean, *Faba vulgaris*, IV 97, XI 14, XII 23, 126, XIII 54, 105, 107, XIV 43, XVI 123, XVII 55, 56, 72, 240, XVIII 10, 50, 51, 57, 58, 59, 60, 62, 95, 101, 117-122, 126, 143, 155, 157, 164, 181, 184, 185, 187, 191, 193, 198, 205, 228, 241, 245, 253, 257, 259, 304, 305, 307, XIX 40, 118, 133, 157, XX 53, 56, 89, 203, 211, XXI 70, XXII 91, 140-141, XXIV 22, XXV 46, XXVII 40, XXIX 63, XXX 67, XXXIII 109, XXXVI 133. Faba Aegyptia, Indian lotus, *Nelumbo nucifera*, XVIII 121. Faba Graeca, the fruit of the nettle-tree, *Celtis australis*, XVI 123, XXIV 6.
- Fagus, beech-tree, *Fagus silvatica*, XVI 16, 18, 19, 25, 35, 36, 37, 74, 185, 218, 229, 242, XXIV 14, XXVIII 191.
- Far, emmer or two-grained wheat, *Triticum dicoccum*, IX

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- 174, X 157, XIII 114, XVIII 7, 8, 9, 10, 15, 17, 49, 52, 56, 61, 62, 66, 81, 82, 83, 88, 92, 93, 97, 108, 111, 141, 142, 166, 184, 185, 187, 198, 202, 205, 241, 298, XX 57, 242, XXII 121, XXIV 30, 39, XXVI 39, 163, XXX 148, XXXIII 118.
- Farfarus, colt's foot, *Tussilago farfara*, XXIV 135.
- Farfugium = farfarus = tussilago, XXIV 135.
- Fel terrae = centaurium minus, XXV 68.
- Felícula, a rock-fern = polypodium, XXVI 58.
- Felis oculus, emendation of ferus oculus = asyla, XXV 145.
- Felix, bracken fern, *Pteris aquilina*, and male fern, *Aspidium filix-mas*, XVII 29, 54, XVIII 45, XXIV 85, XXV 44, XXVI 58, XXVII 34, 72, 78-80, XXXVI 187.
- Femur bubulum, unknown. It has been thought, without probability, to be motherwort, *Leonurus cardiaca*, XXVII 81.
- Feniculum (fæniculum), fennel, *Foeniculum vulgare*, VIII 99, XIII 136, XIX 119, 173, 186, XX 43, 194, 242, 254, 264, XXIV 152, XXV 82, 110, 117, XXIX 119, XXXII 129.
- Fenum Graecum, fenugreek, *Trigonella faenum graecum*, XIII 10, 13, XVII 56, XVIII 140, XX, 88, 251, XXI 37, XXII 123, 125, XXIII 117, 122, 126, XXIV 184, XXVI 77, XXVII 29, XXVIII 177, XXX 127.
- Ferula, fennel giant, *Ferula communis*, VI 203, VII 198, XII 127, XIII 122-126, XV 25, 117, XVI 179, XIX 175, XX 260, XXI 54, 80, XXII 97, XXIV 2, XXVI 135.
- Ferula in XII 126 is *Ferula galbaniflua* and in XII 128 is *Heracleum spondylium*.
- Ferus oculus. See Felis oculus.
- Ficus, fig-tree, usually *Ficus carica*, VII 21, VIII 209, X 32, XI 17, 118, XII 22-24, 34, 38, 40, XIII 49, 51, 56, 58, 138, XIV 102, 133, XV 43, 60, 66, 68-72, 74, 77, 81-83, 109, 110, 116, 117, 186, XVI 84, 90, 116-118, 121, 126, 127, 128, 130, 137, 181, 186, 209, 241, XVII 67, 84, 87, 88, 89, 95, 96, 100, 103, 112, 113, 118, 119, 120, 121, 123, 137, 154, 155, 200, 221, 222, 223, 225, 231, 233, 238, 241, 242, 244, 247, 253, 255-256, 258, 259, 260, 261, 263, XVIII 17, 188, 243, 245, XIX 156, XX 52, 127, 129, 136, 178, 180, 237, 238, 250, XXI 82, 108, XXII 97, 103, 120, 122, 123, 157, 158, XXIII 25, 26, 64, 80, 117-130, 135, 149, XXIV 16, 30, XXV 121, XXVI 21, 23, 29, 63, 65, 75, 76, 93, 159, XXVII 49, 51, XXVIII 126, 186, XXIX 59, 102, 106, XXX 32, XXXI 116, 118, 119, XXXIV 133, XXXVI 181.
- The Indian ficus (VII 21, XII 22) is the banyan, *Ficus benghalensis*; a second type, called pala (XII 24) is the banana, *Musa paradisiaca*; a third type, unnamed (*ibid.*), is the mango, *Mangifera indica*; the Idæan ficus of the Troad (XV 68) is perhaps the snow-pear, *Pyrus nivalis*, or the amelanchier, *Amelanchier vulgaris*; and the ficus Aegyptia is the carob-tree, *Ceratonia*

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- siliqua* (XIII 59) and sycamore-fig, *Ficus sycamorus* (XIII 56). The ficus described as a seaweed (XIII 138) is perhaps an aleyonidian polyp.
- Filix = felix, fern.
- Flamma Iovis, possibly *Agrostemma coronaria*, XXVII 44.
- Flammeum = phlox, XXI 64.
- Flos Iovis, Jove's flower, *Agrostemma flos Jovis*, XXI 59, 67.
- Forensis, a kind of grape, XIV 42.
- Fraga, strawberry, *Fragaria vesca*, XV 98, XXI 86, XXV 109.
- Fraxinus, ash-tree, *Fraxinus excelsior*, XI 77, XIII 117, XV 67, XVI 62-64, 69, 74, 83, 106, 210, 219, 228, 229, 230, XVII 67, 78, 81, 151, 200, XVIII 240, XXII 95, XXIV 46, XXV 71, XXIX 94.
- Frumentum, in Pliny's time, usually a generic term for grain, occasionally for wheat, II 211, VII 64, 191, XVI 49, 176, XVII 14, 40, 46, XVIII 14, 16, 48, 49, 51, 52, 56, 58, 59, 60, 61, 62, 65, 67, 69, 70, 71, 79, 81, 88, 91, 93, 96, 97, 101, 117, 126, 140-157, 163, 164, 166, 170, 188, 191, 192, 196, 198, 223, 259, 296, 298, 301-308, 322, 341, XIX 79, XXI 98, XXIV 158, XXVIII 28, XXXII 35, XXXVII 201.
- Frutex coriarius = rhus (1), XXIV 91.
- Frutex sanguineus, cornel, *Cornus sanguinea*, XVI 74, 176.
- Fucus marinus. See phycos.
- Fungus, mushroom, tree-fungus, usually *Agaricus*, XIII 139, XVI 33, 85, 208, XIX 38, 63, XX 25, 47, 86, 94, 132, 236, XXI 126, 184, XXII 31, 96-100, 108, XXIII 43, 65, 115, 159, 162, XXV 103, 131, XXVI 135, XXVII 50, XXIX 103, XXXI 119, XXXII 44, XXXVI 138.
- Gabalium, Arabian aromatic shrub, unknown, XII 99.
- Galbanum, galbanum, a gum resin obtained from galbanum giant fennel, *Ferula galbaniflua*, XI 16, XII 121, 126, XIII 9, XV 8, XIX 180, XXIV 12, 21, 22, XXXI 121.
- Galeobdolon, brownwort, *Scrophularia peregrina*, XXVII 81.
- Galeopsis = galeobdolon, *ibid.*
- Galion = galeobdolon, *ibid.*
- Gallidraga, hairy teasel, *Dipsacus pilosus*, XXVII 89.
- Gelotophyllis, Indian hemp, *Cannabis sativa*, XXIV 164.
- Genista, greenweed, *Genista tinctoria* or *pilosa*, XVI 74, 176, XVII 136, XVIII 240, XIX 15, XXI 51, 72, 82, XXIV 65.
- Gentiana, gentian, some species of *Gentiana*, XIV 111, XXV 71, 100, 142, XXVI 29, 32, 36, 74, 137, 140, 163, XXXII 54.
- Geranion, crane's bill, *Geranium* sp., XIX 36, XXVI 108, 158, 160. In XXVI 108 the first type is probably round-leaved crane's bill, *G. rotundifolium*, or perhaps a species of heron's bill, such as *Erodium malachoides*, and the second is probably tuberous crane's bill, *G. tuberosum*.
- Gethyon (getion, getium, gethium), long onion, a variant of *Allium cepa*, XIX 100, 105, 107, 117, 118, 121, 181, 183.

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- Geum, avens, *Geum sativum*, XXVI 37.
- Gingidion, French carrot, *Daucus gingidium*, XX 33.
- Git, Roman coriander, *Nigella sativa*, XIX 168, XX 182-184, XXVII 121. See Melanthion.
- Gladiolus, corn-flag, *Gladiolus segetum*, XXI 65, 107, 108, 111, 115. In XXI 111 Pliny speaks of another gladiolus = cypiros.
- Glans, acorn, as in XXIV 7; but glans faginea, beechnut, as in XXIV 14.
- Glastum, greenweed, *Genista tinctoria*, XXII 2.
- Glaucion, greater celandine, *Chelidonium glaucium*, XXVII 83. In XX 206 it is the horned poppy, *Glaucium flavum*.
- Glaux = eugalacton, wartcress, *Coronopus procumbens*, XXVII 82.
- Glinon, a kind of maple, *Acer creticum*, XVI 67.
- Glycyrrhiza, liquorice, *Glycyrrhiza glabra* and *echinata*, XI 284, XXII 24, XXVIII 97. In XXI 91 an error for cnecos, *s.v.*
- Glycyside, peony, *Paeonia officinalis*, XXV 29, XXVII 84-87.
- Gnaphalion, cotton-weed, *Diotis maritima*, XXVII 88.
- Gossipion, cotton-tree, *Gossypium arboreum*. See Appendix p. 546 (XIX 15), also Gossypinus and Arbor lanigera.
- Gossypinus = gossipion, XII 39.
- Gramen, grass, particularly dog's tooth grass, *Cynodon dactylon*, XVII 89, XVIII 259, XIX 98, XXII 8, XXIV 178-183, XXVII 113.
- Granatum, pomegranate, *Punica granatum*, XIII 9, 10, 112, XV 115, XVI 84, 86, XX 149, XXVI 49.
- Gromphaena, perhaps a kind of amaranth, *Amaranthus tri-color*, XXVI 40.
- Gynaecanthe = vitis nigra, XXIII 27.
- Habrotonum, southernwood, *Artemisia arborescens*, XIII 12, XIV 105, XIX 100, XX 68, XXI 37, 59, 60, 61, 160-162, 168, 170.
- Hadrobolon, black gum of tree bdellium, XII 35.
- Hadrosphaerum, type of nardus, XII 44.
- Haemodorum, broom-rape, *Orobanche cruenta* or *caryophyllacea*, XIX 176.
- Halicacabum (-os, -us), (1) = vesicaria, XXI 177; (2) strawberry tomato, *Physalis alkekengi*, XXI 180, 182, XXII 112. In XXI 180 it is a sleepy nightshade, also called moly and morion.
- Halimon, sea orache, *Atriplex halimus*, XVII 239, XXII 73.
- Haliphloeos, sea-bark oak, *Quercus pseudosuber*, XVI 24.
- Halmyris, sea fennel, *Crambe maritima*, XIX 142.
- Halus, perhaps comfrey, *Symphytum officinale*, XXVI 42. Fée says Montpellier coris, *Coris monspeliensis*, others self-heal, *Prunella vulgaris*, or common hyssop, *Hyssopus officinalis*. See also Alum.
- Harundo, reed, the genus *Arundo*, VII 21, 206, VIII 96, IX 56, X 9, 84, XI 14, 32, XII 32, 124, XIII 122, XVI

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- 90, 92, 125, 126, 156-173, 174, 262, 267, XVIII 46, 122, 240, 341, XIX 92, XX 56, XXIII 28, 68, XXIV 85-87, 150, XXV 93, XXVI 30, XXVIII 230, XXIX 108, XXX 88, 101, XXXI 44, 83, XXXV 46. The Indian harundo of XVI 162, 163 is the bamboo, *Bambusa arundinacea*; that of XXV 46 is one or more species of indigo-plant, *Indigofera*.
- Hastula regia = asphodelus, XXI 109.
- Hebenus, wood of false lote-tree, *Diospyros ebenum*, when the tree is native, otherwise ebony, *D. melanoxylon*, VI 197, XII 17-20, XVI 186, 204, 212, 213, 214, XXIV 89.
- Hedera, ivy, *Hedera helix*, VIII 98, XII 47, 74, XV 100, 115, XVI 9, 79, 85, 86, 88, 90, 92, 144-153, 155, 207, 208, 243, XVII 96, 101, 239, XVIII 245, XXI 52, 55, 78, 177, XXII 75, XXIII 21, XXIV 75-80, 82, 83, 98, XXV 70, 89, 95, 114, 116, 175, XXVI 30, XXVII 35, 43, 76, XXVIII 79, 130, 219, XXXI 44.
- Hedysmum, water mint, *Mentha aquatica*, XIX 160, XXXV 181.
- Hedypnois, ox-tongue, *Helminthia echioides*, XX 75.
- Helenium, generic term for a number of similar plants; in XIV 108, elecampane, *Inula helenium*; in XXI 59, 159, probably *Thymus incana*, but perhaps *Teucrium marum*; applied also to calamint, *Calamintha incana*; identity uncertain in XV 30, XXVIII 117.
- Heleoselinum (helioselinum), wild celery, *Apium graveolens*, XIX 124, XX 117.
- Helia, kale, *Brassica oleracea acephala*, XX 79.
- Helianthes, laudanum plant, *Cistus laurifolius*, XXIV 165.
- Helicallis = helianthes, XXIV 165.
- Heliochrysus, cassidony, *Helichrysum stoechas*, or annual tansy, *Tanacetum annuum*, XXI 65, 66, 168.
- Helion, dwarf elder, *Sambucus ebulus*, XXIV 51.
- Helioscopios, sun-spurge, *Euphorbia helioscopia*, XXII 57, XXVI 69.
- Holioscopium, a kind of heliotropium, XXII 57; a kind of tithymalus, XXVI 69.
- Heliotropium, heliotrope, (1) *Heliotropium villosum*; (2) (helioscopium) *H. europaeum*; (3) (tricocum) turnsole, *Chrozophora tinctoria*, II 109, XII 100, XVIII 252, XIX 100, 178, XX 7, XXI 46, 100, XXII 57-61, XXV 39, XXXVII 83, 165.
- Helix, ivy, *Hedera helix*, XVI 145, 148. In XVI 177 a kind of willow.
- Helleborum (-os), helleboro, the white, probably *Veratrum album*, and the black, some species of *Helleborus*, such as *H. niger*, *H. cyclophyllus*, *H. orientalis*, or *H. officinalis*, XIV 110, XXI 134, XXII 133, XXIV 22, 65, XXV 47-61, 122, 150, XXVI 40, XXVII 6, XXVIII 140, XXIX 110, XXXI 63, XXXII 31, 79.
- Helvonnaca, a kind of grapevine, XIV 32, 84.

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- Helvia*, a kind of grape-vine, XIV 46.
Helvola, a kind of grape, XIV 29.
Helxine, VIII 101, XXI 94, 96, XXII 41, 42, XXV 92 (*v.l.*), XXVII 23, XXVIII 220, XXX 77.
 (1) A thistle, *Atractylis gummifera*, XXI 94.
 (2) sea-side knotweed, *Polygonum maritimum*, XII 41.
 (3) pellitory, *Parietaria officinalis*, VIII 101.
 (4) *Convolvulus arvensis* in Diosc. 4.39 W., and possibly in some passages in Pliny.
Hemeris, usually the gall-oak, *Quercus infectoria*, XVI 22, 26.
Hemerocalles, Martagon lily, *Lilium martagon*, XXI 59, 158.
Hemionion, scale fern, *Asplenium ceterach*, XXV 45, XXVI 41, XXVII 34.
Heptapleuron = plantago, XXV 80.
Heracleon = *origanum heracleoticum*, XXV 32; *heracleon* (-ion) *siderion*, Cretan fig-wort, *Scrophularia lucida*, XXV 34, XXVI 140; = *nymphaea*, XXV 75.
Heracleus pyros = *lithospermon*, XXVII 98.
Heraction, wild purslane, *Euphorbia peplis*, XX 207; a type of panaces, XXVI 113.
Heracleum, see *origanum*, XX 177-180.
Herba Fulviana, unidentified, XXVI 88.
Herba lactaria = *tithymalus*, XXVI 62.
Herba lanaria, probably = *radicula*, *s.v.*, XXIV 168. Cf. XIX 48, XXV 52.
Herba Sabina = *brathy*, XXIV 102. See also XXIX 103.
Herba Scythica. See *Scythica*.
Hermupoa = *linzostis*, XXV 38.
Heroum = *asphodelus*, XXII 67.
Hesperis, night-scented stock, *Matthiola tristis*, XXI 39.
Hestiateris, areca nut, from areca-palm, *Areca catechu*, XXIV 165.
Hierastichas, a type of myrtle, perhaps *Myrtus angustifolia boetica*, XV 122.
Hiberis. See *Iberis*.
Hibiscum (-us), marsh-mallow, *Althaea officinalis*, XIX 89, XX 29, XXVI 21.
Hieracium, hawkweed, the large type *Urospermum picroides*, the small type *Hymenonema graecum*, XX 60.
Hippace, in XXV 83 a Scythian herb; usually mare's milk cheese, as in XI 284, XXVIII 131, 204.
Hippolapathum, horse-sorrel, *Rumex aquaticus*, XX 232.
Hippomarathum, horse-fennel, *Prangos ferulacea*, XX 255, 258, XXI 54.
Hippophaea, see *tithymalus*, XXI 91, XXII 29.
Hippophaeston, a knapweed, *Centaurea spinosa*, XVI 244, XXVII 92.
Hippopheos, a spurge, *Euphorbia acanthothamnus*, XXI 91 (*emend.*), XXVI 55. It is wrongly identified by Pliny with *epithymum*.
Hippophilomos = white-rooted mandragoras, perhaps deadly nightshade, *Atropa belladonna*, XXV 148.
Hippophobas, "horse-fear," a fabulous plant, XXIV 161.
Hipposelinum, alexanders,

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- Smyrniolum olusatrum*, XIX 124, 162, XX 117, XXI 24.
- Hippuris, horsetail, *Equisetum arvense* or *maximum*, XXVI 132, 133, 158.
- Hirculus, unknown, XII 46.
- Holcus, mouse-barley, *Hordeum murinum*, XXVII 90.
- Holochrysos, perhaps cassidony, *Helichrysum stoechas*, XXI 48, 148.
- Holoschoenus, club-rush, *Scirpus holoschoenus*, XXI 113, 119.
- Holosteon, all-bone, *Plantago Bellardi*, XXVII 91.
- Horconia, a kind of grape-vine, XIV 35.
- Hordeum, barley, *Hordeum distichum*, *H. vulgare*, and *H. hexastichum*, VI 158, VIII 23, XIII 117, 130, 132, XVII 31, 54, 56, 260, XVIII 49-51, 56, 58, 60-62, 71, 72-74, 75, 78-80, 98, 100, 103, 142, 146, 149, 151, 152, 155, 156, 164, 165, 166, 184, 191, 192, 198, 202, 250, 295, 299, 304, XIX 169, XX 20, 39, 81, 88, 135, 139, 167, 173, 179, 180, XXI 161, XXII 103, 121, 122, 124, 126, 134-136, 161, XXIII 3, 63, 78, 123, XXIV 29, 39, 55, 62, 97, 149, 186, XXV 55, 146, 156, XXVI 83, 85, 90, 159, XXVII 24, 90, 97, 108, 137, XXVIII 81, 137, 166, 183, 206, 264, XXIX 40, 143, XXX 38, 75, 97, 113, 122, XXXI 63, 103, XXXII 36, 78, 110, 137, XXXIII 108, XXXIV 170, XXXV 181.
- Hordeum murinum = phoenicea, XXII 135. Perhaps mouse-barley, *Hordeum murinum*.
- Horminos, a kind of wild asparagus, perhaps *Asparagus acutifolius*, XIX 151.
- Horminum, clary, *Salvia horminum*, XVIII 49, 96, XXII 159.
- Hyacinthus, corn-flag, *Gladiolus segetum*, XXI 34, 65, 66, 67, 170, XXV 129, XXVI 146. In XXI 170 *Scilla bifolia*. Other plants may be included, but never our hyacinth.
- Hydrolapathon, "water sorrel," a species of *Rumex*, perhaps *R. aquaticus*, XX 231.
- Hyoscyamus, henbane, *Hyoscyamus niger*, XV 30, XX 25, 50, 184, 193, 203, 210, XXI 127, XXII 31, 72, 112, 124, XXIII 94, XXV 35, 37, 104, 142, 164, 165, XXVI 27, 41, 76, 89, 100, 105, 152, XXVIII 74, 158, 256, XXXIV 126.
- Hyoseris, "swine's chicory," hawksbeard, *Crepis neglecta*, XXVII 90.
- Hypecöon, horned cumin, *Hypocoum procumbens*, XXVII 93.
- Hypelate, a type of laurel, *Laurus nobilis*, XV 131.
- Hypericon, St. John's wort, *Hypericum crispum* or *revolutum*, XII 118, XXVI 85, 86, 90, 117, 119, 129, 130, 158, 164, XXVII 26, 37.
- Hyphear, mistletoe, *Viscum album*, XVI 120, 245.
- Hypochoeris, cat's ear, *Hypochoeris radicata*, XXI 89.
- Hypocisthis, hypocist, *Cytinus hypocistis*, XX 208, XXIV 81, 120, XXVI 49, 81, 145, 160, XXVIII 177, 219.
- Hypogeson, a house-leek, *Sempervivum tectorum*, XVIII 159, XXV 160.

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- Hypoglossa, double-tongue, *Ruscus hypoglossum*, XXVII 93.
- Hypoglottion, a kind of laurel, *Laurus*, XV 131.
- Hysopum (hyssopum), perhaps a type of marjoram, *Origanum*, but probably hyssop, *Hyssopus officinalis*, XIV 109, XX 28, 136, 175, 178, 188, XXII 33, 52, XXIII 55, 122, XXV 46, 136, 166, 175, XXVI 23, 29, 31, 32, 34, 40, 41, 54, 76, 114, 124, 127, 144, 160, 164, XXVII 131, XXVIII 246, XXIX 103, XXXI 98, 100, 103, XXXII 131.
- Iasine or iasione, hedge bindweed, *Convolvulus sepium*, XXI 105, XXII 82.
- Iberis, pepperwort, *Lepidium graminifolium*, XXV 87, 88, 134, 143, XXVI 45, 100, 112.
- Idaea, (1) a type of laurel, *Laurus*, XV 131; (2) probably elecampane, *Inula helenium*, XIV 108; (3) perhaps a species of butcher's broom, *Ruscus hypoglossum*, XXVII 93.
- Idaeus rubus, raspberry bush, *Rubus idaeus*, XVI 180, XXIV 123.
- Ilex, holm-oak, *Quercus ilex*, XIII 98, 104, XVI 11, 16, 19, 25, 32, 34, 73, 74, 80, 82, 90, 91, 92, 95, 107, 108, 120, 186, 206, 229, 230, 231, 237, 242, 245, XVII 55, 89, 236, XIX 27, XXIV 7.
- Impia, perhaps French everlasting, *Gnaphalium gallicum*, XXIV 173.
- Inguinalis = argemonion, XXVI 92.
- Inlecebra (illecebra)=andrachle agria, wild purslane, *Sedum stellatum*, XXV 162, XXVI 127.
- Intubus, generic term for chicory, *Cichorium* sp., denoting endive, *C. endivia*, when it is a cultivated form, XIX 123, 129, 185, XX 65, 73, XXI 88, XXII 91, 144, XXXVI 84, XXXVII 90.
- Inula, elecampane, *Inula helenium*, XIX 62, 91-92, 100, XX 38.
- Ion, a kind of violet, *Viola odorata*, XXI 64.
- Iphyon, spike-lavender, *Lavandula spica*, XXI 67.
- Irio, *Iris pallida* and hedge-mustard, *Sisymbrium polyceratum*, XVIII 49, 58, 96, XXII 158, XXV 35, XXVI 40, 137.
- Iris, iris, more especially German iris, *Iris germanica* and *I. pallida*, XIII 5, 14, 18, XIV 128, 135, XV 30, XX 244, XXI 39-42, 67, 140-144, XXII 67, XXIII 63, -122 (emend.), 152, XXV 40, 157, 159, XXVI 55, 143, 159, XXVII 49, 104 (v.l.), XXVIII 188, XXX 127, XXXI 116, XXXII 101.
- Isatis, woad, *Isatis tinctoria*, XX 59, XXVII 84. It is classed by Pliny among lactucae.
- Ischaemon, a styptic plant, perhaps *Andropogon ischaemum*, or manna grass, *Panicum sanguinale*, XXV 83, XXVI 131.
- Ischas, secondary name for leucacantha, XXII 40, usually a type of fig.
- Isocinnamon, a type of cassia, XII 98.

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- Isoetes, a stone-crop, = *aizöum minus*, XXV 160.
- Isepyron, fumitory, *Fumaria capreolata*, XXVII 94.
- Iton, an unidentified type of truffle, XIX 36.
- Itriola, a kind of grape-vine, XIV 37.
- Iuglans (usually *nux iuglans*), walnut, *Juglans regia*, XIV 136, XV 28, 86-91, 109, 114, XVI 74, 76, 116, 131, 205, 212, 218, 224, 248, XVII 59, 64, 89, 91, 136, XX 7, XXIII 88, 147, 149, XXIV 1, XXX 101.
- Juncus, rush, *Juncus* sp., VIII 101, 201, XII 104, 106, XIII 8-11, 13, 15, 18, 140, XIV 107, 111, XV 30, 66, XVI 4, XVII 31, 209, XVIII 46, 108, XIX 31, XXI 112-121, 122, XXII 98, XXVII 98, XXXI 44, 83.
- Juniperus, juniper-tree, *Juniperus* sp., VIII 99, XII 26, 29, 67, XIII 52, 67, XIV 112, XVI 73, 80, 90, 96, 107, 186, 198, 212, 216, 218, XVII 174, XXIII 52, XXIV 27, 51, 54, XXVIII 214.
- Ixia = chamaeleon; (1) *alba*, pine-thistle, *Atractylis gummifera*, XXII 45; (2) *nigra*, black chamaeleon, *Cardopatum corymbosum*, XXII 47.
- Labrum Veneris, the teasel, *Dipsacus fullonum*, or the wild teasel, *D. silvestris*, XXX 24.
- Labrum Venerium, XXV 171, is an unknown river-plant.
- Labrusca, wild vine, *Vitis labrusca*, XII 48, 132, XIV 37, 98, XVI 154, 208, XVII 213, XXIII 8, 17, 19, XXVII 143.
- Laburnum, laburnum, *Cytisus laburnum*, XVI 76, XVII 174.
- Lactoris, a milky plant, unknown, perhaps = *herba lactaria*, XXIV 168.
- Lactuca, lettuce, *Lactuca sativa*. Wild lettuce is probably generally acrid lettuce, *L. virosa*, as in VIII 99, XIX 126; but Pliny applies the term lactuca to many plants that are not lettuces. See VIII 99, IX 128, XIX 117, 120, 122, 125-128, 130, 131, 132, 134, 154, 168, 177, 183, 185, 186, 199, XX 58-68, 199, XXII 88, XXV 28, 71, 147, XXVI 74, 98, 103, XXVII 56, 59, 66, 71, 95, 97, XXXII 101, 111.
- Lactuca caprina = *tithymalus*, XXVI 62. See also XIX 128, XX 58.
- Lacuturris, a kind of cabbage or kale, XIX 141.
- Lada, a type of cassia, XII 97.
- Ladanum, perhaps *Galeopsis ladanum*, a hemp nettle, sometimes the resin (collected by goats' beards) of the plant leda, XII 73-76, XIII 18, XXVI 47, 74, 106, 115, 126, 150, 157, XXVIII 163, XXXVII 204.
- Lagine, secondary name for *clomatis*, XXIV 139.
- Lagopus, unknown, XXVI 52.
- Lanium, dead-nettle, *Lanium album*, *purpureum*, or *maculatum*, XXI 93, XXII 37-38, 43.
- Lapathum, dock and sorrel, species of *Rumex*, XIX 46, 98, 123, 170, 184, XX 59, 231-235, XXI 125, XXV 84, 148, 155, XXXII 131.
- Lappa, bur, *Arctium lappa*, XVIII 153, XXI 104, XXIV 176, XXV 81, 104, XXVI 105. Lappa boaria, perhaps

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- Lappa canina*, XXVI 105.
Lappa canaria, perhaps *Lappa canaria*, XXIV 176.
 Lappago, a sort of bur, XXVI 102.
 Lapsana, hoary mustard, *Hirschfeldia incana*, XIX 144, XX 96.
 Larix, larch-tree, *Larix communis*, XIII 100, XVI 24, 30, 32, 43, 45, 46, 48, 49, 58, 73, 80, 91, 95, 100, 125, 127, 186, 187, 190, 195, 200, 204, 212, 218, 219, 222, 245, XXIV 28, 32, 136, XXVIII 195.
 Laser or laserpicium, the resinous juice of silphium, s.v., XVI 143, XVII 259, XVIII 308, XIX 38-48, XX 34, 56, 80, 90, 141, XXII 101-106, XXXI 120.
 Latace, a magic herb, XXVI 18.
 Lathyrus, chickling vetch, *Lathyrus sativus*, XXVII 95.
 Laurus, bay, *Laurus nobilis*, II 146, VI 79, VIII 101, X 157, XII 3, 34, 57, 98, XIII 10, 118, 139, 141, XIV 112, XV 26, 27, 101, 104, 109, 113, 115, 126, 127-138, XVI 63, 74, 79, 92, 97, 104, 120, 126, 127, 128, 130, 137, 207, 208, 230, 239, 241, XVII 60, 62, 64, 65, 88, 96, 99, 131, 151, 239, 244, XVIII 19, 161, XIX 166, XX 137, 138, 142, 174, 193, XXIII 86, 152-158, XXIV 132, 141, 148, XXVII 84.
 Laver, perhaps water cress, *Nasturtium officinale*, XXVI 50, 87.
 Leda, Cretan rock-rose, *Cistus creticus*, XII 75.
 Ledanum = ladanum, XII 75.
 Ledon, a plant (= leda) in Cyprus, from which a resin (ladanum) was obtained, XXVI 47.
 Lemonium, v.l. for molemonium, XXV 108.
 Lens, lentil, *Ervum lens*, XII 129, XIII 54, 55, XVI 201, XVIII 10, 50, 57, 98, 123, 155, 164, 198, 202, 228, 308, XIX 133, XX 75, XXII 61, 142-147, XXIV 59, 134, 155, XXV 59, XXVI 32, 84, XXVII 30, XXVIII 209. The lenticula (XVIII 123, XX 71, 221, XXI 175, XXIV 109, XXV 135, XXVI 44, XXVII 38, 82, 121, 124, 138, 139) is probably var. *microsperma*.
 Lentiscus, mastic-tree, *Pistacia lentiscus*, XII 56, 71, 72, 121, XIII 9, XIV 112, 122, XV 21, 28, 101, 105, XVI 55, XVII 256, 261, XVIII 228, 244, XXIII 89, XXIV 32, 36, 42, XXV 175, XXVIII 151, 232, XXXII 57, XXXIV 133. See also Mastiche.
 Leo, unknown tree, XIII 119.
 Leontice = cacalia, XXV 135.
 Leontopetalon, lion's leaf, *Leontice leontopetalum*, XXVII 96.
 Leontopodium, probably lion's leaf, *Leontice leontopetalum*, XXVI 52, 128, 145.
 Lepidium, dittander, *Lepidium latifolium*, XIX 166, XX 181.
 Lepton = centaurium minus, XXV 68.
 Leptophyllos = dendroides, XXVI 71.
 Leucacantha, milk-thistle, *Silybum marianum*, XXII 40; in XXVII 124 a secondary name for phalangitis.
 Leucacanthos (-us), milk-thistle, *Silybum marianum*, XXI 94, XXVII 89.
 Leucanthemis, a species of

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- chamomile, *Anthemis*, XXII 53.
- Leucanthemum, (1) chamomile, a species of *Anthemis*, XXII 53; (2) secondary name for phalangitis, XXVII 124; (3) a plant with a scent like that of habrotonum, XXI 60 and probably XXI 163.
- Leucanthes, pellitory, *Parietaria officinalis*, XXI 176, XXVII 89.
- Leucas or leuce, white dead-nettle, *Lamium album*, XXVII 102. In XIX 82 leuce is a secondary name for armoracia.
- Leuceoron = leontopodium, XXVI 52.
- Leucocomus, a kind of pomegranate, *Punica granatum*, XIII 113.
- Leucographis, a thistle, *Carduus leucographus*, XXVII 103.
- Libadion = centaurium minus, XXV 68.
- Libanodes, a kind of grape-vine, XIV 117.
- Libanotis, *Lecokia cretica*, XX 172; in XIX 187 and XXIV 101 apparently rosemary, *Rosmarinus officinalis*. In XXI 58 = root of male conyza. See also XXVI 82.
- Lichen, not our lichen, but perhaps common liverwort, *Marchantia polymorpha*, and *M. stellata*. Some authorities think that in XXIII 133 Pliny has confused the disease lichen with a gum supposed to cure it, XXVI 22, 124.
- Ligusticum, lovage, *Levisticum officinale*, XIX 165, XX 168, 187.
- Ligustrum, (1) privet, *Ligustrum vulgare*, XVI 77; (2) wrongly applied to the henna-plant, *Lawsonia inermis*, XII 109, XXIV 74.
- Lilium, white lily, *Lilium candidum*, XIII 10, 11, XV 31, XVI 154, XXI 22-26, 37, 64, 67, 68, 70, 126, 127, 133, XXV 40, 76, 170, XXVI 97, XXVII 118, 124, XXVIII 223, 235, XXX 50, 110, XXXII 40, 109.
- Limeum, a poisonous plant, XXVII 101.
- Limodoron, a broom-rape, strangleweed, *Orobanche cruenta*, XIX 176.
- Limonia, golden thistle, *Scolymus hispanicus*, XXII 86. In XXI 65 a kind of anemone.
- Limonion (-um), wild beet, *Beta maritima*, XX 72.
- Lingua. Some say hart's tongue fern, *Scolopendrium vulgare*, or *Lingua cervina*, but probably identical with lingulaca, XXIV 170.
- Lingua bovis, probably = l. bubula, XXVII 61.
- Lingua bubula, Italian alkanet, *Achusa italica*, XVII 112.
- Lingulaca, a buttercup, perhaps great spear-wort, *Ranunculus lingua*, XXV 133.
- Linostrophon = marrubium, XX 241.
- Linozostis, annual mercury, *Mercurialis annua*, and perennial mercury, *M. perennis*, XXV 38-41, XXVI 121, 124, 150.
- Linum, flax, *Linum usitatissimum* and *L. angustifolium*, VII 196, X 96, XVII 56, XVIII 73, 108, 165, 205, 229, XIX 2-25, XX 164, 194, 207, 212, 249, XXI 151, XXII 33, 125, XXIV 65, 139, 186, XXV 129, XXVII 74, 111, XXVIII 61, 79, XXX 52, 55, 90, 107, XXXI 99, XXXIV 127, XXXVII 202. In XIII

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- 114 it means the seed of the thymelaea.
- Lithospermon, gromwell, *Lithospermum officinale*, XXVII 98.
- Lolium, darnel, *Lolium temulentum*, XVIII 153, XXII 160.
- Lonchitis, wood-fern, *Aspidium linguum*, or holly-fern, *A. lonchitis*, XXV 137, XXVI 76, 119.
- Lotometra, a meal made from the seeds of the white lotus, *Nymphaea lotus*, and the blue lotus, *N. caerulea*, XXII 56.
- Lotos: (1) As a term for a tree, probably originally denoted the Jew thorn, *Zizyphus lotus*, later extended to the nettle-tree, *Celtis australis*, and even to the clove-tree of India, *Eugenia caryophyllata* (XII 30); Jew thorn and nettle-tree confused in XIII 104-106; Jew thorn mentioned in XIV 101 (shrub); nettle-tree mentioned or described in XIV 101 (tree), XV 101 (bore berries), XVI 235, 236, XVII 5 (grew at Rome), XXIV 6 (grew in Syria), XV 116 (grew in Egypt and Mesopotamia), XIII 81, XVI 172 (wood used for flutes), XVI 186, 204, 212 (wood described). (2) The herb lotos is usually a trefoil, perhaps especially *Trifolium fragiferum* (XIII 107, XIV 101, XXI 34, 99, 103, XXIV 6), but sometimes the trefoil *Lotus corniculatus* (XXI 34, XXII 55). (3) The Egyptian lotos in Pliny (XIII 107-110, XXII 56, XXIV 6) is the white lotus, *Nymphaea lotus*, and the blue lotus, *N. caerulea*, although elsewhere it is sometimes the Indian lotus, *Nelumbo nucifera*. (4) The lotos used as an ingredient in an unguent (XIII 18) is of uncertain identity.
- Lupinus, lupin, especially *Lupinus hirsutus*, *L. albus*, and *L. termis*, XII 38, XIII 141, XV 30, XVII 54, 55, 56, 260, 266, XVIII 47, 50, 57, 59, 125, 133-136, 163, 185, 187, 198, 252, 257, 304, XX 20, XXII 154-157, XXIII 75, 94, XXXII 87, XXXV 102.
- Lupus salictarius, perhaps hop, *Humulus lupulus*, XXI 86.
- Lutum, weld, dyer's weed, *Reseda luteola*, XXXIII 87, 91.
- Lycapsos, viper's herb, *Echium italicum*, XXVII 97.
- Lychnis, rose-campion, *Lychnis coronaria*, XXI 18, 67, 171, XXV 68; lychnis agria = antirrhinum, XXV 129.
- Lychnitis, the third type of phlomis, s.v., XXV 121.
- Lycium, a juice obtained from the buck-thorn, *Rhamnus lycioides*, XII 31, XXII 25 (emend.), XXIII 109, XXIV 124-126, XXVI 164. See also Pyxacanthus chironius.
- Lygos = vitex, XXIV 59.
- Lynx, unknown plant, XXXVII 34.
- Lyron = alisma, XXV 124.
- Lysimachia, purple loosestrife, *Lythrum salicaria*, XXV 72, 100, XXVI 131, 141, 147, 164.
- Macir, red bark of the root of an Indian tree, probably *Holarrhena antidysenterica*, XII 32.
- Mados = vitis alba, XXIII 21.
- Magydaris, (1) the stalk (more exactly the leaf-like seed) of

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- silphium, XIX 45; (2) asafoetida, especially *Scorodosma foetida*, XIX 46.
- Malacha, gum of the tree bdellium, XII 35.
- Malache, in XX 122 apparently *Malva nicaeensis* or *M. rotundifolia*, but in Greek a generic term for mallows.
- Maldacon = malacha, XII 35.
- Malicorium = Punica, XXIII 107.
- Mallon, Boeotian name of nymphaea, XXV 75.
- Malobathrum, usually the leaves of a plant of uncertain identity growing in the Far East, perhaps *Cinnamomum tamala*, XII 129, XIII 14, 18, XIV 108, XXIII 93.
- Malope, a kind of mallow, XX 222.
- Malundrum, unknown, possibly *Lychnis silvestris* or *dioica*, XXVI 40.
- Malus, apple-tree, usually *Malus domestica*, VII 25, 83, XII 14, 16, XV 39, 42, 57, 58, 59, 64, 65, 109, 110, 116, XVI 74, 77, 84, 90, 92, 98, 103, 106, 109, 114, 115, 117, 122, 124, 125, 126, 127, 128, 137, 181, 211, 241, XVII 59, 67, 71, 72, 88, 95, 96, 100, 111, 119, 120, 136, 151, 220, 221, 227, 230, 238, 266, XVIII 34, XXIII 100, XXVI 109. *Malus Assyria*, citron, *Citrus medica*, XI 278, XII 15-16, XIV 7, XVI 135; *malum cotoneum*, see *Cotoneum*; *malum cydoneum*, see *Cydoneum*; *malum erraticum* perhaps = *malum terrae*, XXVI 88; *malum granatum*, see *Granatum*; *malus Medica*, citron, *Citrus medica*, XII 15-16, XV 47; *malum Persicum*, see *Persicum*; *malus Punica*, see *Punica* (arbor *Punica*, XIII 118); *malum strutheum*, see *Strutheum*; *malum terrae* = *aristolochia*, XXV 95, XXVIII 37.
- Malva, (1) as a cultivated plant, usually the cheese-flower, *Malva silvestris*, probably sometimes *M. nicaeensis* (note two cultivated types in XX 222); (2) as a wild plant, usually the dwarf mallow, *M. rotundifolia*, but sometimes the marsh-mallow, *Althaea officinalis* (generally called *althaea*), and the tree-mallow, *Lavatera arborea* (as in XIX 62-63); see XIX 62, 98, 170, XX 221-230, XXI 46, 78, 81, XXII 34, XXIV 175, 187, XXV 41, 95, 172, XXVI 58, 82 (*emend.*), 108, XXVIII 189, 205, 209, XXIX 62, XXX 24, XXXVII 114.
- Mandragoras, (1) mandrake, *Mandragora officinarum*; (2) perhaps also deadly nightshade, *Atropa belladonna*, VIII 101, XIV 111, XXV 147-150, XXVI 24, 93, 104, 105, 121, 145, 149, 156.
- Manicon = dorycnion, XXI 179.
- Marathum or marathrum, fennel, *Foeniculum vulgare*, VIII 99, XX 110, XXI 54, XXX 27.
- Marcus, a kind of grape-vine, XIV 32.
- Margaris, a kind of palm-tree, XIII 41.
- Mariscus, type of *iuncus*, XXI 112.
- Marmaritis = *aglaophotis*, XXIV 160.
- Maron, a kind of marjoram, *Origanum sipyleum*, XII 111, XIII 13, 18.

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- Marrubium (marruvium), horehound, *Marrubium vulgare* and *M. peregrinum*, XIV 105, XX 118, 241-244, XXII 41, XXV 43, XXVI 93.
- Massaris, a product of the flower clusters of the labrusca, XII 133, XXIII 2, 9.
- Mastiche, mastich, *Pistacia lentiscus*, XII 72, XXIV 42, XXXVII 51.
- Mastos, unknown, XXVI 163.
- Mecon (1) usually a generic term for poppy, *Papaver*, especially *P. somniferum*; (2) in XX 209 = tithymalus. Mecon aphrodes (1) usually the frothy "poppy," *Silene venosa*, as in XX 207; in XXVII 119 small purple spurge, *Euphorbia peplis*, confused with a poppy because of its juice. Sometimes called heraclion.
- Meconion = peplis, XXVII 119; = a product of the mecon, XXIII 43, 61, 80, XXV 143.
- Meconis, probably acrid lettuce, *Lactuca virosa*. XIX 126, XX 67.
- Medica, lucerne, *Medicago sativa*, XVIII 144-148; in XIV 108 probably elecampane, *Inula helenium*.
- Medion, perhaps a bellflower, such as *Campanula lingulata*, or perhaps *Convolvulus althaeoides*, XXVII 104.
- Melamphyllum = paederos, XXII 76.
- Melampodion, black type of helleborum, XXV 47.
- Melaneranis, bog-rush, *Schoenus nigricans*, XXI 112.
- Melanion, perhaps by error for melanthion, otherwise violet, *Viola odorata*, XXI 65.
- Melanthion (-um), Roman coriander, *Nigella sativa*, XX 182, XXIII 67, XXVIII 188, 217, XXXI 84, XXXIII 85, XXXV 185; = anthemis, XXII 53.
- Melaspermon = melanthion, XX 182.
- Melilotos, an aromatic fennugreek, *Trigonella graeca*, XIII 13, XV 30, XXI 39, 53, 63, 70, 151, XXII 123, 142, XXIII 85, XXIX 37.
- Melimelum, often a type of quince, but in XV 51, 59, XXIII 104 a type of apple, *Malus domestica*.
- Melissophyllum, balm, *Melissa officinalis*, XX 116, XXI 53, 70, 82, 149-150, XXVII 134. See also Apiastrum.
- Melittaena = melissophyllum, XXI 149.
- Melopocho, perhaps the melon, *Cucumis melo*, XIX 67.
- Melothron (melotrum), bryony, *Bryonia cretica*, XXI 53, XXIII 21.
- Memaecylon, fruit of the strawberry-tree, *Arbutus unedo*, XV 99.
- Menta, usually water mint, *Mentha aquatica*, sometimes such similar species as *Satureia calamintha*, XIX 100, 159, 176, 177, XX 44, 80, 147-151, 191, XXI 38, XXII 126, XXIII 144, XXIV 130, XXVI 121.
- Mentastrum, usually horse mint, *Mentha silvestris*, XIV 105, XIX 123, 159, XX 124, 144-146, XXV 63.
- Mercurialis, annual mercury, *Mercurialis annua*, and perennial mercury, *M. perennis*, XXV 38, XXVII 102, XXIX 80.
- Merois = aethiopis, XXIV 163.

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- Mesa, a kind of cannabis, XIX 174.
- Mesoleucon, secondary name for leuce, XXVII 102.
- Mesosphaerum, type of nardus, XII 44.
- Mespila, generic term for various thorn trees. In XV 84 the setania is the medlar, *Mespilus germanica*; the anthedon is the Oriental thorn, *Craetagus orientalis*; and the one similar to it, called Gallic, is the oxyacanth, *C. oxyacantha*. See XIV 103, XV 65, 84, 112, 115, XVII 59, 67, 221, 230, XXI 88, XXIII 141.
- Metopium, the gum of the metopon, XII 123, XIII 6, 8.
- Metopon, an African tree from which the gum hammoniacum is distilled, XII 107.
- Mettica, a kind of grape-vine, XIV 35.
- Meum, bear-wort, spignel, *Meum athamanticum*, XX 253, 264.
- Microsphaerum, type of nardus, XII 44.
- Milax. See Smilax.
- Miliaria, herb injurious to millet, XXII 161.
- Militaris = lactoris, XXIV 168.
- Milium, common millet, *Panicum miliaceum*, XI 112, XIII 108, XIV 101, XV 63, XVIII 49, 50, 52, 53, 54, 60, 61, 74, 96, 99, 100, 101, 102, 158, 160, 163, 182, 185, 191, 192, 198, 250, 259, 297, 299, 304, 307, XXII 56 (*emend.*), 116, 130, XXV 83. The milium introduced into Italy from India (XVIII 55) is a type of sorghum, perhaps common sorghum, *Sorghum vulgare*.
- Millefolium, (1) a secondary name for Achilleos, XXV 42; (2) Latin term for myriophyllon, XXIV 152; (3) mentioned, XXIV 176, XXVI 78; (4) in Diosc. 3.138 W., a type of *Parietaria* or *Chrysanthemum*.
- Mintha. See Menta.
- Minyanthes, treacle clover, *Psoralea bituminosa*, XXI 54, 152.
- Minyas, magic herb, XXIV 157.
- Misy, truffle, *Tuber aestivum* or *T. niveum*, XIX 36.
- Mithridatia, probably *Erythronium dens canis*, XXV 62, 127.
- Molemonium, a plant that produces vomiting, XXV 108; XXVI 40.
- Mollugo, a kind of lappago, XXVI 102.
- Moloché agria = hibiscum, XX 29.
- Molon = syron, XXVI 33, identified by many with moly.
- Moly, perhaps *Allium nigrum*, XXV 26, 127, but in XXI 180, sleepy nightshade, *Withania somnifera*.
- Molybdacna = plumbago, lead-wort, *Plumbago europaea*, XXV 155.
- Morion, (1) white type of mandragoras, perhaps *Atropa belladonna*, XXV 148, (2) sleepy nightshade, *Withania somnifera*, XXI 180, XXV 148.
- Morus, mulberry-tree, *Morus nigra* and *M. alba*, XIII 56, XV 52, 96, 97, 101, 109, 113, 116, XVI 28, 74, 83, 102, 119, 182, 186, 207, 210, 218, 227, XVII 124, 136, XVIII 253, XXI 183, XXIV 120, 122, XXVII 57, XXX 23, XXXIV 133. But morum denotes

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- either a mulberry or a blackberry (*e.g.*, XV 97, XXIV 117). The Egyptian morus (XXIII 134-136) is the sycamore, *Ficus sycamorus*.
- Muralis, pellitory, *Parietaria officinalis*, XXI 176.
- Murra (sometimes myrra), myrrh or the tree that produces it, *Balsamodendron myrrha*, VI 174, XII 33, 51, 66-71, 81, XIII 8, 10, 12, 15, 16, 17, 18, XIV 91, 92, 93, 107, 134, XIX 162, 187, 188, XX 164, 212, 249, 251, XXI 38, 131, XXIII 109, 136, 139, XXIV 22, 86, 164, 166, 179, XXV 41, 175, XXVI 81, 109, 154, 159, XXVII 85, 130, 133, XXVIII 118, 120, 174, 175, 179, 214, 245, XXIX 41, 46, 115, 137, XXX 24, 87, 88, 93, 105, 116, 140, 145, XXXI 100, XXXII 101, XXXIV 153, XXXV 181.
- Muscus, generic term for moss, esp. sphagnum, X 96, XIX 24, XXVI 22, 105, XXVII 69, 100.
- Musteum, quince, *Cydonia vulgaris*, XV 38.
- Myacanthus, a kind of wild asparagus, perhaps *Asparagus acutifolius*, XIX 151.
- Myagros, ball-mustard, *Nestia paniculata*, XXVII 106.
- Myoctonos = aconitum, XXVII 9.
- Myophonon, wolf's bane, *Aconitum anthora*, or perhaps *Alyssum sativum*, XXI 54.
- Myosota or myosotis, madwort, *Asperugo procumbens*, XXVII 23, 105.
- Myosoton = alsine, XXVII 23.
- Myrice, tamarisk, *Tamarix tetrandra* or *T. articulata*, XIII 116, XXIV 64; = erica, XXIV 67.
- Myriophyllon, water-milfoil, *Myriophyllum spicatum*, XXIV 152.
- Myrobalanum, behen-nut and the tree, *Moringa oleifera*. Oil of ben is extracted from the fruit, XII 100-103, XIII 18, XXIII 98.
- Myrra = myrris, XXIV 154; = murra, VI 174.
- Myrris, sweet cicely, *Myrrhis odorata*, XXIV 154; = geranium or myrtidas, XXVI 108.
- Myrriza = myrris, XXIV 154.
- Myrsineum = feniculum silvestre, wild fennel, XX 255.
- Myrtidanum, an excrescence on the stem of the myrtle, XIV 104, XV 118, XXIII 164.
- Myrtidas (perhaps better mertryx, cf. Diosc. 3.116 W.) = geranium, XXVI 108.
- Myrtites, a type of spurge, perhaps *Euphorbia myrsinites*, XXVI 66-67.
- Myrtopetalum (-s), a kind of polygonus, XXVII 113.
- Myrtus, myrtle-tree, *Myrtus communis*, XII 3, 29, 76, 112, 115, 121, XIII 9, 10, 18, 52, 105, 114, XIV 104, XV 27, 34, 101, 109, 118-126, XVI 74, 79, 90, 92, 112, 121, 137, 234, XVII 62, 88, 95, 96, 123, 124, 257, XX 158, XXI 69, XXII 139, 144, XXIII 87, 159-166, XXIV 6, 165, XXV 159-166, 175, XXVI 42, 66, 121, XXVII 93, 126, XXVIII 81, 137, 194, 207, 209, 260, XXIX 106, 108, XXX 56, 58, 68, 105, 140, XXXII 30, XXXIII 110, XXXIV 133, XXXV 116, 160.

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- Myxa*, sebesten, *Cordia myxa*, XIII 51, XV 45, 97, XVII 75, XXII 120.
- Napus*, navew, *Brassica napa*, XIV 106, XVIII 50, 131-132, 192, 314, XIX 62, 75-77, 85, 100, 117, 177, 179, 183, XX 21, XXI 109, XXIII 52, XXIV 153, XXVII 96 (*v.l.*).
- Napy*, mustard, *Brassica nigra* and *Sinapis alba*, XIX 171; *napy Persicum* = *alterum thlaspi*, XXVII 140.
- Narcissus*, pheasant's-eye *narcissus*, *Narcissus poeticus*, perhaps also *N. serotinus*, XIII 6, XV 30, XVIII 244, XXI 25, 64, 128-129, XXIII 94, XXVIII 72.
- Nardus*, (1) as an import, the rootstock of spikenard, *Nardostachys Jatamansi*; (2) *nardus Celticus* or "Celtic nard" (XIV 107) and *nardus Gallicus* or "Gallic nard" (XII 45, XIII 18, XIV 106, XV 30, XXI 135, XXVII 48, 49) are French spikenard, *Valeriana celtica*; (3) *nardus rusticus*, also called *baccaris* (XII 45, XXI 30, 135), is hazelwort, *Asarum europaeum*, as is *nardus silvestris* (XIV 106). See also XII 42-46, 47, 129, XIII 10, 15, 18, XIV 106, 107, XV 30, XVI 135, 214, XXI 11, 29, 129, 135, XXIII 97, XXIV 21, XXVII 48-50, XXVIII 164, 178, 226, 256, XXIX 135. Reference to *nardi folia* (*e.g.*, XII 42, 129, XXI 11) may involve confusion with *malobathrum*.
- Narthecia*, ferula, *Ferula communis*, XIII 123.
- Narthex*, ferula, *Ferula communis*, XIII 123.
- Nasturtium*, garden cress, *Lepidium sativum*, XIX 117, 123, 154, 155, 181, 185, 186, XX 127-130, 134, 251, XXII 84, 158, XXIV 27, 186, XXV 87, XXVI 27, 40, XXVIII 130, 197, XXIX 48.
- Natrix*, goat-root, *Ononis natrix*, XXVII 107.
- Nectaria*, probably *elecampane*, *Inula helenium*, XIV 108.
- Nepenthes*, opium poppy, *Papaver somniferum*, XXI 159, XXV 12.
- Nepeta*, *Satureia calamintha*, especially var. *nepeta*, XIV 105, XIX 123, 160, XX 158.
- Nerium* = *rhododendron*, XVI 79, XXIV 90.
- Neuras*, (1) = *doryenion*, XXI 179; (2) = *phrynion*, XXV 123; (3) = *poterion*, XXVII 122.
- Neuroides*, wild beet, *Beta maritima*, XX 72.
- Neurospastos* = *cynosbatos*, XXIV 121.
- Nicolai*, a kind of large date, XIII 45.
- Nigina*, false reading for *nyma*, XXVII 106.
- Notia*, possibly tanner's sumach, *Rhus coriaria*, XXIV 175.
- Nucleus*, generically, a kernel, often specifically a pine kernel, XV 35, 86, XVI 30, XXIII 142, XXIV 164, 166, properly *nucleus pineus*, XIV 103, XVII 64, XXII 89, XXIII 142, 150.
- Nummulus*, possibly moneywort, *Lysimachia nummularia*, XVIII 259.
- Nux*, (1) generic term for a nut; (2) without epithet, as a term

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- for a particular kind of nut, usually walnut, *Juglans regia*; (3) nux abellana, see Abellana; (4) nux amara, almond, *Prunus amygdalus*, XX 185, 188, 195; (5) nux basilica = iuglans, XV 87; (6) nux castanea, see Castanea; (7) nux Graeca, almond, *Prunus amygdalus*, XI 17, XV 90, XVI 138, XVII 136; (8) nux Persica = iuglans, XV 87; (9) nux pinea, pine cone, esp. of the stone pine, *Pinus pinea*, VI 205, XV 35, 86, XVII 71, 136, XXIII 142-143, XXIV 164, 166, XXVI 28, XXIX 40; (10) nux Pontica = abellana, XV 88; (11) nux Praenestina, hazelnut, *Corylus avellana*, XV 90, XVII 96. See also balanos and Dios balanos.
- Nyctalops = nyctegreton, XXI 62.
- Nyctegreton, Oriental plant allegedly luminous at night, perhaps *Caesalpinia pulcherrima*, XXI 62.
- Nyma, unknown herb, XXVII 106.
- Nymphaea, yellow water-lily, *Nuphar luteum*, and white water-lily, *Nymphaea alba*, XXV 75, 132, XXVI 32, 44, 45, 57, 76, 81, 94, 135, 144, 147, 155, 163. The nymphaea Heraclia is specifically the white waterlily, XXV 132, XXVI 32, 44, 45, 76, 81, 93, 94, 144, 163. In XXVII 78 nymphaea pteris is the male fern, *Aspidium filix mas*.
- Occhus, perhaps manna sainfoin, *Alhagi Maurorum*, XII 34.
- Ocimoides = clinopodium, wild basil, *Calamintha clinopodium*, XXIV 137.
- Ocimum, basil, *Ocimum basilicum*, XIX 98, 100, 117, 119-123, 154, 157, 176, 177, 181, 183, XX 119-124, 144, XXI 100, 174, 178, XXII 43, XXIII 131, XXIV 81, XXVI 162, XXVIII 169, 175, 185, XXX 139, XXXII 53, 55.
- Ocinum, a mixed fodder crop, probably mostly vetches, XVII 196, 198, XVIII 143.
- Oculus, house-leek, *Semprevivum arboreum*, XXV 160.
- Odontitis, perhaps red eye-bright, *Euphrasia odontites*, XXVII 108.
- Oenanthe, (1) in XXI 65, 167 drop-wort, *Spiraea filipendula*; (2) apparently a product obtained from the flower clusters of the labrusca in XII 132, 133, XIII 18, XXIII 2, 8-9, 18, 80, 91.
- Oenobrechis (ὄνοβρυχίς in Diosc.), sainfoin, *Onobrychis viciaefolia*, XXIV 155.
- Oetum, unknown, perhaps earth nut, *Arachis hypogaea*, XXI 88.
- Oistos, arrowhead, *Sagitta sagittifolia*, XXI 111 (emend.).
- Olea, olive-tree, *Olea europaea*, II 108, 226, III 41, VI 131, VIII 204, XI 18, XII 3, 35, 40, 77, 130, XIII 67, 141, XIV 7, XV 1-8, 11, 19, 34, 78, 134, 135, XVI 19, 79, 87-91, 104, 127, 128, 131, 176, 183, 186, 206, 212, 219, 222, 230, 234, 239, 240, 241, XVII 11, 17, 30, 31, 47, 53, 81, 93, 96, 97, 103, 112, 113, 119, 125, 126, 127, 128, 129, 130, 133, 137, 174, 200, 223, 228, 229, 230, 232, 233, 237, 241, 242,

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- 243, 257, 262. 263, XVIII 162, 188, 240, 243, 254, 266, 287, 288, 329. 337, XIX 48, XXI 51, 57, XXII 73, XXIII 69-75, 96, 97, XXVI 96, 162, XXVII 65, XXXIV 1, 133, XXXV 160. The Arabian olca (XII 77) is the white mangrove, *Avicennia officinalis*, also described, but not named, in XII 37.
- Oleaginea, a kind of grape, XIV 38.
- Oleaster, oleaster, *Olea oleaster*, V 3, VIII 101, XII 26, XIII 114, XV 19, 24, XVI 70, 74, 199, 206. 212, 219, 230, 240, 244, XVII 129, 242, XXIII 72, 76-78, 129, 242, XXIV 50, XXXIV 133.
- Oleastrum, a kind of buxus, XVI 70.
- Oliva, olive-berry, *Olea europaea*, VIII 204, XI 18, 46 (*emend.* Detlef.), XII 26, 67, 130, XIII 32, 54, 63, 139, 141, XV 4-6, 9-17, 18, 20, 34, 68, 96, 101, 104, 109, 111-113, 115, XVI 28, 108, 121, 234, XVII 229, 230, 237, 241, XVIII 38, 254, 273, 320, 329, XIX 79, XXI 71, XXIII 73, XXVI 82, XXXVII 161, 184, 188. The oliva of India (XII 26) is *Olea cuspidata*.
- Olus, originally a generic term for potherbs, in Pliny usually specifically the cabbage, *Brassica oleracea*, XVII 177, 240, XVIII 165, 188, XIX 79, 133, 134, 136-144, 177, 179, 180, 188, XX 33, XXII 74, 77, 80, 82, XXIV 1, 139, XXVI 58, 83, 88, 164, XXVII 54, 66, XXVIII 171, XXIX 80, XXXI 115, XXXII 94, XXXV 189.
- Olus maritimum, sea orach, *Atriplex halimus*, XXII 73-74, XXXII 94. Cf. olus maritimum, XXIX 79.
- Olusatrum, alexanders, *Smyr-nium olusatrum*, XII 67, XIX 162, 164, 187, XX 117, XXII 79.
- Olyra, two-grained wheat, *Triticum dicoccum*, XVIII 62, 75, 92, XXII 121; in XVIII 75 wrongly equated with oryza; in XVIII 81 mentioned as oryza.
- Omphalocarpos = aparine, XXVII 32.
- Onear = onothera, XXVI 111.
- Onitis, a type of marjoram, perhaps *Origanum creticum*, XX 175. In XX 177 = heraclium heracleoticum.
- Onochelis, onochilis in XXI 100, XXII 51, probably identical with onochilon.
- Onochilon, bugloss, *Echium diffusum*, called also anchusa, archebion, enchrysa, onochelis, rhexia, XXII 51.
- Ononis (see also Anonis), rest-harrow, *Ononis antiquorum*, XXVII 29.
- Onopordon or onopraddon, a thistle, perhaps the cotton thistle, *Onopordon acanthium*, XXVII 110.
- Onopyxos, a thistle, *Onopordon illyricum*, XXI 94.
- Onosma, stone bugloss, *Onosma echiioides*, XXVII 110.
- Onothera, oleander, *Nerium oleander*, XXVI 111, 146.
- Onothuris, oleander, *Nerium oleander*, XXIV 167, XXVI 18.
- Ophiostaphyle, probably the caper, *Capparis spinosa*, XIII 127. Elsewhere, also bryony, *Bryonia dioica*.

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- Ophiusa, a magical plant, XXIV 163.
- Ophrys, ivy-blade, *Ophrys ovata* or *bifolia*, XXVI 164.
- Opition, earth-nut, *Bunium ferulaceum* (in Greece, but not in Italy), XIX 95.
- Opobalsamum, balsam of Mecca, the juice of the balsam-tree, *Commiphora opobalsamum*, XIII 18.
- Opulus, a kind of maple, *Acer*, XIV 12, XVII 201.
- Orchis, (1) generic term for orchis, *Orchis* sp., many species of which grow in the Mediterranean region, XXVI 95, 96, 128, 146, XXVII 65, (2) a kind of olive, XV 4, 13, 20, 21.
- Oreoselinum, perhaps wild parsley, *Petroselinum sativum*, XIX 124, XX 117.
- Orestion, probably elecampane, *Inula helenium*, XIV 108.
- Origanum, (1) white type is sweet winter marjoram, *Origanum heracleoticum*, (2) black type is probably common marjoram, *O. vulgare*, (3) *Origanum heracleoticum* is *O. heracleoticum*, VIII 98, X 195, XII 89, 91, XIV 105, XIX 100, 117, 118, 121, 165, 184, 186, XX 55, 128, 156, 170, 175, XXI 53, 55, 56, XXII 46, XXIV 1, XXV 32, 68, XXVII 13, 57, XXVIII 152, 156, XXXI 98, 101.
- Orion, a kind of polygonus, perhaps *Equisetum pallidum*, XXVII 115.
- Orminos or orminus, wild asparagus, perhaps especially *Asparagus acutifolius*, XIX 151, XX 110, XXVI 94 (ormenos agrios).
- Ornithogala, star of Bethlehem, *Ornithogalum* sp., especially *O. umbellatum*, XXI 102.
- Ornus, mountain ash, *Fraxinus ornus*, XVI 74, XVII 201.
- Orobanche, probably a species of *Orobanche*, perhaps *O. caryophyllacea*, XVIII 155, XXII 162. In Theophrastus, usually dodder, *Cuscuta europaea*.
- Orobothron = hypocisthis, XXVI 49.
- Orsinus, perhaps a mistake for *όρεινός*, XXI 67.
- Ortyx = stelephuros, XXI 101.
- Oryza, rice, *Oryza sativa*, XV 28, XVIII 71, 75, 93, XXVIII 110. In XVIII 81 probably an error for olyra.
- Osiritis, Egyptian name for cynocephalia, XXX 18.
- Ostrya (or ostrya), hop hornbeam, *Ostrya carpinifolia*, XIII 117.
- Osyris, poet's cassia, *Osyris alba*, XXVII 111.
- Othonna, perhaps the greatercelandine, *Chelidonium majus*, XXVII 109.
- Oxalis, sour dock, *Rumex acetosa*, XX 231.
- Oxycedrus, prickly cedar, *Juniperus oxycedrus*, XIII 52.
- Oxylapathon, sharp-pointed dock, *Rumex crispus*, XX 231, 233.
- Oxymyrsine, butcher's broom, *Ruscus aculeatus*, XXIII 88, 158, 165, XXV 158, XXVII 73, 93. In XV 27, 122, and XXIII 88 = chamaemyrsine.
- Oxys, (1) wood-sorrel, *Oxalis acetosella*, XXVII 112; (2) a form of the great sea-rush, *Juncus acutus*, XXI 112.
- Oxyschoenos, great sea-rush, *Juncus acutus*, XXI 112.

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- Oxytriphylon, a type of trifolium with pointed leaf, probably a species of trefoil, *Trifolium*, XXI 54.
- Padus, Gallic term for picea, III 122.
- Paederos, (1) = caerefolium, *Anthriscus cerefolium*, XIX 170; (2) = melamphyllum, a type of acanthus, *Acanthus mollis*, XXII 76.
- Paeonia, peony, *Paeonia officinalis*, XXV 29, XXVI 131, 151, XXVII 84.
- Pala, the banana or plantain-tree, *Musa paradisiaca*, XII 24.
- Paliurus, Christ's thorn; when the habitat is Africa (XIII 111, XXIV 115), *Zizyphus spina Christi*; when the habitat is southern Europe (XVI 98, 121), *Paliurus aculeatus*.
- Pallacana, horn onion, a variant of *Allium cepa*, XIX 105.
- Palma, palm, chiefly the date-palm, *Phoenix dactylifera*, sometimes the dwarf-palm, *Chamaerops humilis*, V 73, VI 131, 161, 205, VIII 29, XII 19, 40, 103 (= elate), 108, 134, XIII 26-30, 62, 69, 90, 111, 119, 125, 138, XIV 102, 107, XV 67, 109, 113, 115, 116, XVI 79, 80, 90, 109, 112, 119, 125, 126, 135, 211, 223, 231, 240, XVII 31, 58, 60, 65, 228, 244, 245, 261, XVIII 188, XIX 31, XXIII 52, 97, 98, 99, 111, XXIV 29, 165, XXVIII 118, 255, XXX 55. Palma as a seaweed (XIII 138) is *Callophyllis laciniata*.
- Panacea = cunila bubula, XX 169.
- Panaces (panax), "all-heal," sometimes galbanum plant, *Ferula galbaniflua*, at other times = ligusticum; in XII 121 a kind of pastinaca. XII 127, XIII 12, 14, 18, XIV 111, XV 30, XIX 187, XX 169, 178, XXIII 16, XXIV 97, XXV 30-33, 42, 99, 131, 134, 142, 165, XXVI 27, 74, 75, 88, 89, 92, 100, 107, 111, 117, 118, 119, 137, 139, 151, 152, XXVIII 258, XXXII 30, 133. The type called chironium (XXV 32, 99) is elecampane, *Inula helenium*. The type called Heracleon (XXV 32), Heraclion (XXVI 113), or Heraclia (XXV 42) is *Origanum heracleoticum*. Cunila bubula was sometimes called panax (XIX 165).
- Pancration (-um), (1) = eichorium, XX 74; (2) *Pancratium maritimum*, XXVII 118.
- Panicum, Italian millet, *Setaria italica*, XVIII, 49, 50, 52-54, 60, 61, 91, 96, 99, 101, 107, 111, 116, 153, 160, 163, 182, 185, 192, 198, 250, 297, 314, XX 241, XXII 131.
- Papaver, generic term for poppy, *Papaver* sp., including *P. somniferum*, *P. rhoeas*, *P. hybridum*, and *P. argemone*, XIII 98, 107, XVII 56, XVIII 53, 59, 122, 205, 229, XIX 21, 167-169, XX 20, 61, 188, 198-209, XXI 70, 165, XXII 123, XXIII 119, 128, XXV 35, 66, 76, 90, 102, 131, XXVI 44, 67, 74, XXVII 26, 83, 119, 125, 138, XXIX 43, XXX 53, 59, 71, XXXII 77, XXXVII 71.
- Pappus = erigeron, XXV 168.
- Papyrus, papyrus, *Cyperus papyrus*, V 44, VI 82, 205, VII 206, XIII 68-89, 128, XV 117,

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- XVI 157, 178, XVIII 108, XXII 48, XXIV 88, XXVIII 61, 168, XXIX 43, XXXIII 94, XXXIV 112.
- Paralium, (1) horned poppy, *Glaucium flavum*, XX 206; (2) sea spurge, *Euphorbia paralias*, XX 209; (3) sun spurge, *Euphorbia helioscopia*, XXVI 68.
- Pararinon or paranarrhinon = antirrhinum, wild lion's-mouth, *Antirrhinum orontium*, XXV 129.
- Pardalianches = aconitum, VIII 99, XX 50, XXVII 7.
- Parthenis = artemisia, XXV 73.
- Parthenium (parthenion), a term for a variety of similar plants, including (1) pellitory, *Parietaria officinalis* (XXI 176, XXII 43, 44), (2) seaside knotweed, *Polygonum maritimum* (XXI 89, XXII 41), and (3) annual mercury, *Mercurialis annua* (XXV 38). See also XXI 176.
- Passiolus (phasiolus, phaseolus), probably usually the black-eyed cowpea, *Dolichos melanophthalmus*, sometimes perhaps other similar legumes, XII 26, XVIII 58, 125, 186, 198, 202, 314, XXIV 65.
- Pastinaca, a generic term for the carrot, *Daucus carota*, and carrot-like plants, including *Althaea officinalis*, *Athamanta cretensis*, *A. cervaria*, *Seseli ammoides*, and *Malabaila aurea*, the identity in some instances very uncertain, XIX 62, 88, 90, 92, XX 29, 30, XXI 86, 167, XXV 89, 112.
- Pecten Veneris, shepherd's needle, *Scandix pecten-veneris*, XXIV 175.
- Pedes gallinacii = capnos truncata, XXV 155.
- Pelasgum, spurge laurel, *Daphne mezereum*, XV 132.
- Pelecinus, axe-weed, *Securigera coronilla*, XVIII 155, XXVII 121.
- Pentapetes, pentaphyllon = quinquefolium, XXV 109.
- Pentorobon = paeonia, XXV 29, XXVII 84.
- Peplis, small purple spurge, *Euphorbia peplis*, XX 210-215, XXVII 119.
- Pepo, perhaps the water-melon, *Citrullus vulgaris*, XIX 65, XX 11-12.
- Peraticum, gum of the tree bdellium, XII 35.
- Perdicium, (1) pellitory, *Parietaria officinalis*, XXI 176, XXII 43; (2) seaside knotweed, *Polygonum maritimum*, XXI 102, XXII 41; (3) uncertain, XIX 100, XXVIII 219.
- Pericarpum, a bulb, XXV 131.
- Periclymenon, honeysuckle, *Lonicera*, perhaps *L. etrusca* or *L. caprifolium*, XXVII 120.
- Perisson = dorycnion, XXI 179.
- Peristereos, vervain, *Verbena officinalis*, XXV 126, 134, 143, XXVI 121, 144, 155; = hierobotane, XXV 105.
- Perpressa = baccar, XXI 132, XXVI 87.
- Persea, a sacred tree of Egypt and Persia, *Mimusops Schimperii*, XIII 60, 63, XV 45.
- Persicon napy, "Persian mustard," perhaps *Lunaria annua*, XXVII 140. Cf. Thlaspi.
- Persicum (caryon) = iuglans, XV 87.
- Persicus, peach tree, *Amygdalus persica*, XII 14, XIII 60,

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- XV 39-45, 48, 109, 110, 111-114, 115, XVI 111, 138, XVII 136, 151, XXIII 132.
- Persolata or personata, probably common bur-dock, *Arctium lappa*, XXV 104, 113, XXVI 24, 28, 92, 113, 121, 136, 143.
- Pesoluta, Egyptian plant used for chaplets, XXI 184.
- Petellium, unknown; Sprengel says water avens, *Geum rivale*, XXI 49.
- Petroselinum, parsley, *Petroselinum sativum*, XX 118, XXVIII 197, XXXII 101.
- Peuce, (1) generic term for firs and pines, XI 118; (2) a kind of grape, XIV 75.
- Peucedanum, sulphur-wort, *Peucedanum officinale*, XXV 117, 118, 139, 143, 164, 166, XXVI 23, 28, 32, 34, 41, 54, 74, 76, 79, 89, 114, 118, 130, 135, 144, 156, 161, XXVII 143, XXXII 28, 68.
- Pezica, a mushroom, perhaps *Morchella esculenta* or *Lycoperdon bovista*, XIX 38.
- Phalangion or phalangitis, Greek alplily, *Lloydia graeca*, XVIII 156, XXVII 124.
- Phalaris, perhaps canary grass, *Phalaris canariensis*, but more likely *P. nodosa*, XXVII 126.
- Pharnaceon, great centaury, *Centaurea centaurium*, XXV 33.
- Phascos = sphagnos, XXIV 27.
- Phaselion = isopyron, XXVII 94.
- Phaseolus and phasiolus, see Passiolus.
- Phasganion = xiphium, corn-flag, *Gladiolus segetum*, XXV 137, 138.
- Phaunus, probably actually a coarse olive, rather than a plant (cf. Theophr. *H. Pl.* 2.2.12), XVI 244.
- Phelandrion, an unknown plant, XXVII 126.
- Pheos = stoebe, a burnet, *Poterium spinosum*, XXI 91, XXII 28.
- Philanthropos, goose-grass, *Galium aparine*, XXIV 176, XXVII 32.
- Philetaeris or philetaeria = polemonia, Olympic St. John's wort, *Hypericum olympicum*, or Greek valerian, *Polemonium caeruleum*, XXV 64, 99.
- Philochares = marrubium, XX 241.
- Philopais = marrubium, XX 241.
- Phlemis, phlome, *Phlomis samia*, XXV 121.
- Phlomos = verbascum, s.v., XXV 120.
- Phlox, wall flower, *Cheiranthus Cheiri*. Some say rose-campion, *Lychnis coronaria*, or *Silene vespertina*, XXI 59, 64.
- Phocis, a kind of pear-tree, XVII 237.
- Phoenicea, perhaps rye-grass, *Lolium perenne*, XXII 135.
- Phoenix elate, dwarf-palm, *Chamaerops humilis*, XXIX 56.
- Phonos, distaff-thistle, *Carduus lanatus*, XXI 95, XXVII 73.
- Phragmites, probably pole-reed, *Arundo donax*, XXXII 141.
- Phrenion = anemone, XXI 164.
- Phrynion, perhaps Cretan milk-vetch, *Astragalus creticus*, XXV 123, XXVI 130; = poterion, XXVII 122.
- Phthiophores, erect cone Aleppo pine, *Pinus brutia*, XVI 49.

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- Phu, Caucasian valerian, *Valeriana phu*, XII 45, XXI 136.
- Phycos, sea-weed generically; one type of litmus described, *Cystoseira foeniculosa*, and two types of grass-wrack, *Posidonia oceanica* and *Cymodocea nodosa*, XIII 135-136, XXVI 103, 128.
- Phyllanthos; Pliny probably took the adjective ἀφύλλανθος ("having no petals") to be the name of a flower, XXI 99.
- Phyllon, secondary name for leucacantha, XXII 40; in XXVII 125 perhaps *Mercurialis perennis*. In other authors phylla (or folia) is often a term for malobathrum, s.r.
- Phyteuma, cross-wort, *Reseda phyteuma*, XXVII 125.
- Picea, pitch-pine, *Pinus silvestris* and other species, III 122, XIV 123, 127, XV 36, XVI 30, 35, 40-42, 44, 46, 49, 53, 57, 91, 95, 106, 122, 138, 224, XVII 91, 236, XXIV 28, 31, 32, XXVII 115, XXIX 95.
- Picina, a kind of grape, XIV 42.
- Pieris, chicory, perhaps esp. *Cichorium pumilum*, XVI 106, XIX 126, XXII 66.
- Pinaster, cluster pine, *Pinus pinaster*, XIV 127, XV 36, XVI 38, 39, 80.
- Pinus, pine, fir, mostly Scotch pine, *Pinus sylvestris*, and Aleppo pine, *P. halepensis*, XIII 35, XVI 30, 31, 36, 38, 42, 79, 91, 95, 106, 107, 123, 138, 193, 195, 223, 230, XVII 71, 89, 91, 228, 235, 238, XXIII 62, 142, XXIV 29, 32, 38, XXVI 133, XXIX 50, XXXIII 94, XXXVII 42.
- Piper, mostly long pepper, *Piper longum*, and black pepper, *P. nigrum*, perhaps in some cases African pepper, *Xylopia aethiopica*, VI 105, XII 26-29, 119, XIV 108, XV 58, 118, XIX 58, 92, 187, XX 34, 87, XXII 26, 33, 104, 155, XXIII 150, XXIV 100, 164, 179, XXV 100, XXVI 109, 117, 154, XXVII 42, 48, 70, 73, 95, 130, 136, XXVIII 119, 120, XXIX 49, 55, 88, 110, XXX 53, 71, 103, XXXI 117, XXXII 89, 101, 115. The pepper-plant that grew in Italy (XII 29, XVI 136) is perhaps a type of laurel, such as *Daphne gnidium*.
- Piperitis = siliquastrum, pepperwort, *Lepidium campestre*, XIX 187, XX 174.
- Pirus, pear-tree, *Pyrus communis*, III 60, 117, XI 118, XII 56, XIV 7, 103, XV 53-56, 58, 61, 65, 68, 84, 115, 116, XVI 74, 77, 84, 90, 92, 97, 103, 106, 109, 112, 114, 117, 122, 137, 181, 205, 211, 245, XVII 11, 17, 59, 71, 72, 88, 95, 111, 114, 120, 131, 136, 221, 230, 237, 253, XVIII 34, 243, XXII 99, 122, 144, XXIII 115-116, XXV 148.
- Pistacia (nux), pistachio, *Pistacia vera*, XII 25 (described, but not named), XIII 51, XV 91, XXIII 150.
- Pisum, pea, *Pisum sativum*, XIV 135, XVIII 57, 58, 123, 124, 125, 198, XX 53.
- Pituitaria = staphis, XXIII 18.
- Pityusa, quacksalver's spurge, *Euphorbia pityusa*, XXIV 31.
- Plantago, large type probably large plantain, *Plantago major*, small type hare's foot plantain, *P. lagopus*, as

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- in XXV 80; see also XXI 101, 144, XXII 2, 41, 144, XXIV 176, XXV 70, 74, 80, 122, 124, 125, 143, 164, 165, 174, XXVI 21, 24-27, 32, 33, 38, 41, 44, 74, 78, 88, 90, 92, 101, 109, 110, 113, 115, 118-122, 126, 129-131, 136, 137, 141, 153, 158, XXX 76; = *stelephuros*, XXI 101.
- Platanus, Oriental plane, *Platanus orientalis*, IV 9, XII 6-13, 128, XIII 98, 114, XV 29, 57, 66, 85, XVI 30, 90, 98, 127, 129, 130, 131, 133, 210, 238, 240, XVII 65, 90, 96, 99, 121, 235, 243, XVIII 240, XXII 24, XXIV 44, XXXIII 51, 137.
- Platyphyllos, broad-leaved spurge, *Euphorbia platyphyllos*, XXVI 70, 119.
- Plistolochia, (1) *Aristolochia plistolochia*, XXV 96, 98, 101, 141; (2) in XX 222 = *althaea*; (3) *πλειστολοχία* = *hibiscum*, XX 29.
- Plocimon, a kind of reed, XVI 168.
- Plumbago, leadwort, fleawort, *Plumbago europaea*, XXV 155, XXIX 81, XXXIV 168.
- Polemonia, perhaps Olympic St. John's wort, *Hypericum olympicum*, or Greek valerian, *Polemonium caeruleum*, XXV 64, 99, 119, 165, XXVI 44, 75, 78, 89, 140, 152, 164.
- Polium, hulsewort, *Teucrium polium*, XXI 44, 100, 127, 145-147, XXVI 39, XXVII 134.
- Polyacanthos, welted thistle, *Carduus acanthoides*, XXI 94.
- Polyanthemum, a crowfoot, *Ranunculus polyanthemus*, XXVII 112.
- Polycnemon, field basil, *Zizyphora capitata*, XXVI 148.
- Polygala, a milkwort, *Polygala venulosa*, XXVII 121.
- Polygonaton, perhaps Solomon's seal, *Convellaria polygonatum*, XXVII 113. In XXII 40 a secondary name for *leucacantha*, milk-thistle, *Silybum marianum*.
- Polygonoides, a kind of clematis, XXIV 141.
- Polygonon (-os, -us), knotgrass, *Polygonum aviculare*, XXVI 158, XXVII 108, 113-117.
- Polypodium, polypody, *Polypodium vulgare*, XVI 244, XXVI 58, 80, 105, 122, XXIX 80.
- Polyrrhizon, (1) black hellebore, *Helleborus niger*, XXV 51; (2) = *plistolochia*, XXV 96, 98; (3) in XXVII 126 uncertain.
- Polythrix = *polytrichon*, XXV 132, XXVI 124, 147.
- Polytrichon = *adiantum*, XXII 62.
- Populus, (1) *abele*, *Populus alba*; (2) black poplar, *Populus nigra*, II 108, XI 16, XII 3, 132, XIII 58, 141, XIV 10, XV 67, XVI 73, 77, 85-87, 91, 92, 97, 108, 119, 126, 133, 173, 176, 206, 209, 223, 231, XVII 68, 78, 90, 143, 151, 200, 242, XVIII 240, 266, 360, XXIV 47, 135, XXXV 160, XXXVII 31.
- Porcillaca, purslane, *Portulaca oleracea*, XIII 120, XIX 167, XXIII 143, XXVI 69, 84, XXVII 137, XXX 111. The type called *peplis* (XX 210) is *Euphorbia peplis*.
- Porphyritis, a type of fig, XV 71.
- Porrum, leek, *Allium porrum*,

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- XIII 132, XVIII 71, XIX 107, 108-110, 118, 120, 177, 181, 183, 185, XX 44-49, XXI 109, XXII 105, 159, XXIV 136, XXV 137, XXVII 54, XXVIII 65, 108, 173, 176, 199, 233, 241, 248, XXIX 47, 123, 136, XXXI 117, 129, XXXII 94, 124, XXXIV 118, XXXVII 109, 113. *Porrum nigrum* = ballote, XXVII 54.
- Posia (or posea), a kind of olive, XV 4, 13, 17, 20, 21.
- Potamaugis = thalassaegle, a narcotic plant of India, XXIV 164.
- Potamogiton, pondweed, *Potamogeton natans*, water milfoil, *Myriophyllum* sp., or featherfoil, *Hottonia palustris*, XXVI 50, XXXII 53.
- Poterion, goat's thorn, *Astragalus creticus* or *poterium*, XXV 123, XXVII 122.
- Poterion aureum = radícula, XXIV 96.
- Pothos, the asphodel, especially *Asphodelus ramosus*, XXI 67.
- Praecia, a kind of grape-vine, XIV 29.
- Praecox, peach, *Amygdalus persica*, XVI 103.
- Prasion, (1) white horehound, *Marrubium vulgare*, XX 241; (2) = onitis, XX 175; (3) sweet winter marjoram, *Origanum heracleoticum*, XX 177.
- Prason, usual Greek term for the leek, *Allium porrum*; in XIII 136 a term for Ligurian grass-wrack, *Posidonia oceanica*.
- Pressum, a kind of sili, XXXIII 158, 160.
- Proserpinaca = polygonon, XXVI 23, XXVII 127.
- Protomedia = hestiatensis, XXIV 165.
- Prunus, usually the plum-tree, *Prunus domestica*, sometimes the blackthorn, *P. spinosa*, XIII 51, 64, 66, XV 41, 42, 44, 46, 58, 109, 112, XVI 74, 104, 245, XVII 65, 75, 95, 96, 136, XVIII 34, XIX 92, XXIII 132, 133, XXIV 106. The prunus Aegyptia (XIII 64) is the sebesten, *Cordia myxa*.
- Pseudoanchusa, Italian alkanet, *Anchusa italica*, XXII 50.
- Pseudobunion, probably Cretan pimpinella, *Pimpinella cretica*, XXIV 153.
- Pseudocypirus, "false cypirus," XVII 95, XXXIV 133.
- Pseudodictamnium, perhaps false dittany, *Ballota acetabulosa*, XXV 93, XXVI 49, 142, 153, 161.
- Pseudonardus, spike lavender, *Lavandula spica*, XII 43.
- Psilotrum = vitis alba, XXIII 21, XXVI 164, XXVIII 250, 255.
- Psithia, a kind of grape, XIV 81.
- Psychotrophon = vettonica, betony, *Betonica officinalis*, XXV 84.
- Psyllion, fleawort, fleabane, *Plantago psyllium*, XXV 140, 143, 174, XXVI 32, 45, 79, 101, 104, 119, 122, 140, 156, 161.
- Pteris, a fern, probably male fern, *Aspidium filix mas*, XXVII 78.
- Pteris nymphaea, probably bracken, *Pteris aquilina*, XXVII 78.
- Puleium, pennyroyal, *Mentha pulegium*, II 108, XVIII 227, XIX 123, 160, XX 144, 152-158, XXIV 62, XXV 92, 104, XXVI 91, 148, XXVII 49, XXXII 38.

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- Pumila*, a kind of grape-vine, XIV 37.
- Punica*, pomegranate, *Punica granatum* XII 48, 49, XIII 112, 113, 118, XIV 103, XV 39, 60, 100, 112, 115, XVI 74, 90, 99, 104, 109, 112, 137, 241, XVII 17, 65, 67, 86, 88, 95, 96, 113, 120, 121, 123, 230, 238, 241, 247, 257, 259, XVIII 188, XIX 135, XX 218, XXI 72, XXII 90, 103, 143, XXIII 85, 86, 106-114, 123, 157, XXIV 57, 77, 129, XXVII 44, XXVIII 102, 182, XXIX 136, XXX 50, XXXI 117, XXXII 112, XXXV 184, 189, XXXVI 145.
- Pycnocomon*, probably a species of motherwort, *Leonurus marrabiastrum* or *cardiaca*. Others say meadow succisa, *Succisa pratensis*, or woodland angelica, *Angelica silvestris*, XXVI 57, 125, 128, 145.
- Pyracantha*, fire-thorn, *Coton-easter pyracantha*, XXIV 114.
- Pyrethrum*, identified by some as *Anthemis pyrethrum*, but on the basis of habitat perhaps rather *Anthemis tinctoria* var. *pallida*, XXVIII 151.
- Pyros achne* = *thymelaea*, XIII 114.
- Pyxacanthus chironius*, buck-thorn, *Rhamnus lycioides*, XII 30, XXIV 125.
- Quercus*, oak-tree, esp. *Quercus robur*, IV 18, VIII 81, XI 32, 77, XII 108, XIII 63, 137, 138, XIV 126, XVI 5, 11, 16, 17, 19, 20, 22, 25, 31, 37, 74, 81, 92, 116, 130, 218, 238, 245, XVII 55, 89, 130, 201, 235, 236, XVIII 34, XXIV 1, 7, 130, XXV 43, 106, XXXI 83, 107, XXXVI 203. *Quercus* as a seaweed (XIII 137) is *Cystoseira ericoides* (shore type) and *Sargassum vulgare* (deepwater type).
- Quinquefolium*, cinquefoil, *Potentilla reptans*. No doubt the name included *Tormentilla reptans* and *Potentilla rupestris*. It = pentaphyllon, pentapetes and chamaezelon, XXV 65, 109, 119, 128, 143, 166, 174, XXVI 21, 23, 24, 26, 35, 53, 79, 90, 92, 105, 113, 114, 116, 124, 126, 127, 131, 143, XXVIII 140.
- Rabuscula*, a kind of grape, XIV 42.
- Radicala*, perhaps soapwort, *Saponaria officinalis*; others say dyer's weed, *Reseda luteola*, or Egyptian soaproot, *Gypsophila struthium*, XIX 48, XXIV 96, XXV 52, XXIX 39. See also *Struthion*.
- Radius* or *radius maior*, a type of olive, XV 4, 20.
- Ranunculus*, celandine, *Ranunculus* sp., the four types described in XXV 172-174 perhaps *R. asiaticus*, *R. lanuginosus*, *R. muricatus*, and *R. aquatilis*.
- Rapa* (-um), turnip, *Brassica rapa*, XVII 114, XVIII 50, 125-132, 163, 191, 192, 259, 314, XIX 62, 75, 86, 87, 98, 122, 171, 176, 183, XX 18-20, 21, XXV 114, XXVII 96.
- Rapadion* = *leontopetalon*, XXVII 96.
- Raphanitis iris*, perhaps *Iris biflora*, XXI 41.
- Raphanus*, cultivated radish, *Raphanus sativus*, XI 112, XV 30, XVII 239, 240, XVIII

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- 130, 163, XIX 62, 78-87, 98, 100, 117, 119, 122, 177, 182, 183, XX 21, 22, 23, 28, 29, XXII 125, XXIII 16, 21, 65, 94, XXV 59, XXXI 65, 79, 115, XXXVI 79. *Raphanus agria* is properly a term for charlock, *Raphanus raphanistrum* subsp. *segetum*, but in XXVI 72 is erroneously given as a synonym of *apios ischas*.
- Regia oliva, a kind of olive, XV 13, 15.
- Reseda, white mignonette, *Reseda alba*, XXVII 131.
- Rhamnos, probably a buckthorn, *Rhamnus* sp., XXIV 124.
- Rhapeion = leontopetalon, a v.l. of rapadion, XXVII 96.
- Rhaphanidion = leontopetalon, a v.l. of rapadion, XXVII 96.
- Rhecoma, the root of a species of rhubarb, *Rheum ribes*, XXVII 128-130.
- Rhexia = onochilon, XXII 51.
- Rhinoelia = anchusa, XXVII 59.
- Rhododaphne = rhododendron, oleander, *Nerium oleander*, XVI 79, XXIV 90.
- Rhododendron (-os), oleander, *Nerium oleander*, XVI 79, XVII 98, XXI 51, 77, XXIV 90.
- Rhoea, red poppy, *Papaver rhoeas*, XIX 169, XX 204, XXI 165.
- Rhopalon = nymphaea, XXV 75.
- Rhus, species of sumach, (1) myrtle-leaved sumach, *Coriaria myrtifolia* and (2) tanner's sumach, *Rhus coriaria*, XII 31, XIII 55, XXIV 91, 93, 120, 129, XXIX 50.
- Robur, usually the Valonia oak, *Quercus aegilops*, XI 151, XII 35, XIII 119, XVI 6, 17, 19, 20, 25, 27, 28, 29, 30, 31, 36, 53, 91, 100, 122, 126, 127, 130, 182, 186, 189, 204, 207, 212, 218, 222, 226, 227, 245, 249, XVII 57, 121, 174, 220, 235, 236, 253, XXII 97, XXIV 11, 12, 13, XXV 168, XXVIII 113, XXXIV 95.
- Rodarum, perhaps meadow-sweet, *Spiraea ulmaria*, XXIV 172.
- Rosa, rose, *Rosa centifolia* and other species, XI 118, 279, XII 40, 110, 121, XIII 2, 9, 18, 26, XIV 106, XV 30, XVI 79, 145, 180, XVIII 111, 236, 242, XX 152, XXI 8, 11, 14-21, 22, 36, 37, 45, 49, 55, 59, 64, 65, 69, 70, 120, 121-125, XXIII 102, XXIV 121, XXV 17, 76, 164, XXVI 42, XXIX 94, 95, XXXIV 168, XXXV 129.
- Rosmarinum, rosemary, *Rosmarinus officinalis*, XI 39, XVII 98, XIX 187, XXIV 99-101, 173, XXXIII 76.
- Rubia, madder, *Rubia tinctorum*, XIX 47, XXIV 94, XXVII 106, XXXV 45.
- Rubus, any bramble, including the wild rose and raspberry-bush, *Rubus fruticosus*, VIII 189, 201, XII 89, XV 97, XVI 80, 91, 176, 179, 180, XVII 68, 96, XVIII 34, 153, XIX 68, XXI 14, 19, XXII 65, XXIV 117-124, XXVIII 214, XXXIV 133.
- Rumex (rumix), (1) = oxalis, XX 231; (2) patience dock, *Rumex patientia*, XIX 184. See also XI 18, XXVI 21.
- Rumpotinus, a kind of maple,

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- Acer*, XIV 12. See XXIV 172.
- Ruscum, butcher's broom, *Ruscus aculeatus*, XXI 86, 173, XXIII 166.
- Ruta, rue, *Ruta graveolens*, VIII 98, XIV 105, XVII 261, XIX 100, 121, 123, 156-157, 177, 182, 184, XX 43, 80, 81, 89, 131-143, 149, 217, XXI 38, 60, 76, 147, XXII 53, 103, 155, XXIII 4, 16, 81, 123, 148, 149, 152, XXIV 25, 31, 90, XXV 64, 100, 118, 121, XXVI 29, 31, 32, 85, XXVII 26, 28, 48, 93, 98, 113, 134, XXVIII 79, 152, 174, 207, 211, 216, 231, XXIX 30, 47, XXX 120, XXXI 119, XXXII 30, 102, 117, 131, XXXIII 110.
- Sabellium, a kind of cabbage, XIX 141.
- Sabina, savin, *Juniperus sabina*, X 157, XVI 79, XVII 98, XXIV 102.
- Sabucus or sambucus, elder-tree, *Sambucus nigra*, XV 64, 100, 115, XVI 74, 83, 103, 122, 179, 180, 183, 187, 209, 231, XVII 68, 151, 174, XXIV 51, XXVII 73.
- Saccharon, tabaschir, produced principally by the spiny bamboo, *Bambusa arundinacea*, and the berry bamboo, *Melocanna bambusoides*, XII 32.
- Sacopenium, of uncertain identity, not the same plant as sagopemon, XII 126, XIX 40, 167, XX 197, XXVIII 177.
- Sagapemon, the juice of *Ferula persica*, XX 197.
- Sagitta, arrowhead, *Sagitta sagittifolia*, XXI 111.
- Sagittarium, a kind of reed, XVI 166.
- Salic astrum, a plant growing in willow-beds, perhaps the melothron of Theophrastus, bryony, *Bryonia cretica*, XXIII 20.
- Saliunca, probably French spikenard, *Valeriana celtica*, XXI 40, 43, 44, 144.
- Salix, willow, various species of *Salix*, II 108, XI 14, XIV 110, XVI 77, 87, 90, 97, 110, 133, 173-177, 201, 209, XVII 28, 68, 95, 99, 109, 136, 141-143, 147, 201, 209, XVIII 99, 240, 267, XXIV 56, 58, XXV 72, XXXI 44.
- Salvia, (1) = elelisphacus, XXII 147; (2) secondary name for a type of beechion, perhaps *Verbascum lychnitis*, XXVI 31.
- Samolus, perhaps brook-weed, *Samolus Valerandi*; some think pasque-flower, *Anemone pulsatilla*, XXIV 104.
- Sampsuchum, sweet marjoram, *Origanum marjorana*, XIII 10, XV 29, 30, XX 177, XXI 61, 163.
- Sanguinaria = polygonus, XXVII 113.
- Sarcocolla, a Persian tree, *Penaca sarcocolla*, XIII 67, XXIV 128.
- Saripha, an Egyptian water-plant, perhaps *Cyperus ari-comus*, XIII 128.
- Satureia, usually summer savory, *Satureia hortensis*, XIX 107, 165. See also XXVI 55.
- Satyrion (-ios). Four types described in XXVI 96-98: (1) man orchis, *Acera anthropophora*; (2) probably a species of *Orchis*; (3) a Greek type, of uncertain identity; and (4) fritillary, *Fritillaria*

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- graeca*, mentioned also in XXVI 128 and XXVIII 119. Modern nomenclature indicates term was applied also to *Himantoglossum hircinum*, *Serapias cordigera*, and *Phallus impudicus*. In XXV 98 = *aristolochia polyrrhizos*.
- Saurion, cited as a term for mustard as a result of careless reading of Diosc. 2. 156 W. on Θλάσπι, or his source, XIX 171.
- Saxifragum = adiantum, XXII 64.
- Scammonia, scammony, *Convolvulus scammonia*, XIV 110, XXV 54, XXVI 59, 90, 93, 114, 157, XXVII 79. *Scammonia tenuis* = lagene, XXIV 139.
- Scandix, wild chervil, *Scandix pecten-veneris*, XXI 89, XXII 80-81.
- Scandula, perhaps spelt, *Triticum spelta*, otherwise emmer, *T. dicoccum*, XVIII 62.
- Scapula, a kind of grape-vine, XIV 34.
- Sceptrum = aspalathos (1), XII 110.
- Schista cepa, a kind of onion, XIX 101.
- Scilla, sea onion or squill, *Urginea maritima*, XIV 106, XV 63, XVII 87, XVIII 244, XIX 93, 96, 99, 101 121, XX 97-101, XXI 106, 108, XXIII 59, XXIV 44, XXV 26, 115, XXVI 95, 114, XXVII 14, XXX 23, 52, XXXII 101, 135; *scilla pusilla* (XXVII 118), *Pancratium maritimum*; *scilla Epimenidu* (XIX 93), *Ornithogalum pyrenaicum*.
- Scirpula (*v.l.*), a kind of grape-vine, XIV 81.
- Scirpus, a bulrush, VII 206, XIII 76, XVI 178.
- Scolymus, golden thistle, *Scolymus hispanicus*, XX 262, XXI 94-96, XXII 86-87.
- Scopa regia, probably *Chenopodium scoparia*, XXI 28, XXV 44.
- Scordastum, an unknown tree, XII 36.
- Scordion, germander, *Teucrium scordium*, XXV 63, XXVI 77, 89, 100, 107, 137.
- Scordotis = scordion, XXV 63, 100, 127, XXVI 27, 32, 44, 140, 151.
- Scorpio, a term applied to several different plants, of uncertain identity, in some instances apparently *Aconitum anthora*, *Asparagus acutifolius*, *Scorpiurus sulcata*, scorpion furze, *Genista acanthoclada*, and scorpion root, *Doronicum cordatum*. Two types described in XXII 39; a secondary name for tragos, XIII 116, XXVII 142; a secondary name for thelyphonon, XXV 122; a secondary name for aconitum, XXVII 9; a type of cucumis, XX 8; a spinous plant, XXI 91, 93.
- Scorpiuron = tricoccum, XXII 60.
- Scripula, a kind of grape, XIV 81.
- Scythica or scythice, = glycyrrhiza, XXV 82, XXVI 28, 146, XXVII 2.
- Secale, rye, *Secale cereale*, XVIII 141. In XVIII 140 a kind of fenugreek.
- Securiclatra, axeweed, *Securigera coronilla*, XVIII 155.
- Sedum, house-leek, the usual type *Sempervivum tectorum*, the large type *S. arboreum*,

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- XVIII 159, XIX 179, XXV 160, XXVI 111. See Aizoöm.
- Selago, fir clubmoss, *Lycopodium selago*, XXIV 103.
- Semen, emmer, *Triticum dicoccum*, XVIII 82, 102, 112, 184, 198.
- Semnon = theobrotion, XXIV 162.
- Senecio = erigeron, XXV 167.
- Serapias = orehis, XXVI 95.
- Serichatum, Arabian aromatic shrub, unknown, XII 99, XIII 18.
- Serium, a type of tuber (1), *s.v.*, XV 47.
- Seriphum, sea wormwood, *Artemisia maritima*, XXVII 53, XXXII 100.
- Seris, the cultivated form endive, *Cichorium endivia*, the wild form chicory, especially *C. intybus*, XX 73, 76, XXVII 104.
- Serpyllum (serpullum), creeping thyme, *Thymus serpyllum*, XIV 105, XVI 244, XIX 100, 172, 176, XX 138, 173, 176, 245, 264, XXI 59, XXIV 137, XXX 148.
- Serrata = chamaedrys, XXIV 130.
- Serratula = vettonica, XXV 84.
- Sertula campana, Latin name for melilotus, *Trigonella graeca*, XXI 53.
- Sesama (sesima, sesamon), sesame, *Sesame indicum*, VI 161, XIII 11, 12, 118, XV 25, 28, 30, XVIII 49, 53, 58, 60, 96, 98, 99, 304, XXII 132, 158, XXIII 95, XXVI 67, 110, XXVII 126, XXVIII 103, 130, 168. Wild sesamon = eici, XV 25.
- Sesamoides. Two kinds mentioned in XXII 133 (see also XXV 52): (1) perhaps purple rock-cress, *Aubrieta deltoidea*, *Astragalus sesameus*, or *Reseda canescens*; (2) perhaps *Reseda mediterranea*, *Helleborus cyclophyllus*, or herb terrible, *Daphne tartonraira*.
- Seseli, small hartwort, *Tordylium officinale*, VIII 112, XX 238, XXV 92.
- Setania, (1) medlar, *Mespilus germanica*, XV 84, XXIII 141; (2) the "annual" onion, a small, sweet form of *Allium cepa*, XIX 101.
- Setanion, (1) a spring wheat, club wheat, *Triticum compactum*, or perhaps common wheat, *T. vulgare*, XVIII 70; (2) an "annual" type of bulb, unidentified, XIX 95.
- Sibi = eici, XV 25.
- Sieelicon = psyllion, XXV 140.
- Siderion, epithet of heracleon, *s.v.*
- Sideritis, perhaps usually *Stachys heraclea*, perhaps sometimes *Sideritis romana*, VIII 101, XXV 42, 100, 142, 164, XXVI 24, 93, 100, 115, 135, 148, 164. In XXII 41 *Polygonum maritimum* and in XXII 43 *Parietaria officinalis*.
- Dioscorides (IV 33-36) mentions four kinds, including 'Ηρακλεία and 'Αχίλλειος, but the identification of some is doubtful.
- Sil = seseli, XII 128, XX 36, XXII 79, XXIV 177, XXVII 48. A secondary name for halus, XXVI 42 (*emend.*).
- Silaus, a water plant similar to celery, unidentified, XXVI 88.
- Siler, brookwillow, *Salix vitellina*, XVI 77 and XXIV 73.

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- Sili, castor-oil tree, *Ricinus communis*, XV 25.
- Silicia, fenugreek, *Trigonella foenum graecum*, XVIII 140, 165, 166, XXIV 184.
- Siligo, probably usually common wheat, *Triticum vulgare*, or club wheat, *T. compactum*, XVIII 61, 76, 81, 85, 86, 87, 88-91, 93, 106, 164, 184, 198, 205, 298, XXII 119, XXVI 145, XXVIII 8.
- Siliqua, carob, *Ceratonia siliqua*, XIII 59, XIV 103, XV 95, 117, XVII 136, XXIII 151.
- Siliquastrum=piperitis, XIX 187, 188, XX 174.
- Sillybum (syllibum), milk thistle, *Silybum marianum*, XXII 85, XXVI 40.
- Silphium, an extinct species of the asafoetida-producing group, similar in appearance to *Narthex asa foetida* and closely related to *Scorodosma foetida*. If a reference in Pliny is contemporary, not historical, it is to asafoetida, obtained from *Scorodosma foetida* and similar plants. See XIX 38-46, XX 104, XXII 100-106, XXIV 93.
- Sinapi, white mustard, *Brassica alba*, and black mustard, *B. niger*, XII 28, XVI 167, XVIII 128, XIX 117, 119, 133, 138, 170, 171, 181, 186, XX 25, 129, 236-241, XXI 71, 155, XXVIII 165, 219, 220, XXIX 108.
- Sinon, stone-parsley, *Sison amomum*, XXVII 136.
- Sion. (sium), probably water speedwell, *Veronica anagallis*, or perhaps broad-leaved water-parsnip, *Sium latifolium*, XXII 84 (emend.), XXVI 88. In other authors, it also denotes water cress, *Nasturtium officinale*.
- Siser, probably not the skirret, *Sium sisarum*, but rather the parsnip, *Peucedanum sativum*, or the carrot, *Daucus carota*, XIX 62, 90-92, XX 34.
- Sisymbrium, bergamot mint, *Mentha aquatica*, XIX 172, 176, XX 247, XXI 59, XXV 94. The first type in XX 247 is water cress, *Nasturtium officinale*.
- Sisyrrinchion, Barbary nut, *Iris sisyrinchium*, XIX 95.
- Sisyrum = erica, XI 42.
- Sium. See Sion.
- Smilax (or milax), a term for several plants of twining character, including bindweed, especially hedge bindweed, *Convolvulus sepium* (XVI 153, XXI 52, XXIV 82). A second possibility is *Smilax aspera*. The cultivated smilax of Diosc. 2.146 W. is the black-eyed cowpea, *Dolichos melanophthalmus*. In XVI 51 milax is a term for the yew, and in XVI 19 a term for a type of holm-oak.
- Smyrnum (or smyrnion, also zmyrnum and zmyrnion), (1) usually Cretan alexanders, *Smyrnum perfoliatum*, XIX 187, XX 186, XXVII 133-136; (2) sometimes common alexanders, *S. olusatrum*, XIX 162, 188.
- Solanum = strychnon, XXVII 132.
- Somphos = cucurbita silvestris, XX 13.
- Sonchos (-eus, soncum), sow-

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- thistle, *Sonchus Nymanii* and *S. oleraceus*, XXII 88-90, XXVI 163.
- Sopina, a kind of grape-vine, XIV 36.
- Sorbus, service-tree, *Sorbus domestica*, XIII 58, XIV 103, XV 43, 61, 62, 84, 85, 114, XVI 74, 92, 183, 226, 228, XVII 64, 67, 75, 136, 221, 242, 253, XIX 92, XXI 72, XXIII 141, XXIV 129, XXVIII 132, XXXIII 117.
- Spalax, possibly meadow saffron, *Colchicum parnassicum*, XIX 99.
- Sparganion, flowering rush, *Buto-mus umbellatus*, and burweed, *Sparganium* sp., XXV 109.
- Spartum (-on), esparto, *Stipa tenacissima*, XI 18, XIII 73, XVII 29, XIX 26-31, XXIV 65, XXVIII 46, 49, XXXV 137, XXXVII 203.
- Spathe, a term for the so-called cabbage of the dwarf-palm, *Chamaerops humilis* (XVI 112), erroneously given by Pliny for the palm itself (XXIII 99), and even confused with the silver fir (XII 134).
- Sphacos, a sage, *Salvia calycina* or *S. officinalis*, XXII 146.
- Sphagnos, (1) Tree-moss, *Usnea barbata*, XII 108, XXIV 27; (2) = aspalathos (1), XXIV 112.
- Spica, the mass of fibres surrounding the upper end of the rootstock of spikenard, *Nardostachys Jatamansi*, XII 43, XIII 18.
- Spina, (1) generically, a term for a thorn-bush (XV 57, 101, XVI 244, XVII 62, XVIII 360, XXI 68); (2) the Egyptian spina (XIII 66) is the acacia, *Acacia* sp., the white type (spina candida or alba) being *A. albida* and the black type (spina nigra) *A. arabica* (XIII 63, XXIV 109); (3) the usual Arabian spina (XXIV 107) is *Acacia arabica*; (4) the spina sitiens of the Arabian desert (XIII 139) is *Acacia tortilis*; (5) the spina regia (XIII 129) is probably *Acacia albida*; (6) the spina alba of Europe (XIII 115, XV 117, XXI 68, XXIV 108) is probably the oxyacanth, *Crataegus oxyacanthus*; (7) the spina that grew with the service-tree and the birch in Gaul (XVI 75) is probably also the oxyacanth; (8) spina alba in XXIV 108 and XXVIII 185 is perhaps the pine-thistle, *Atractylis gummifera*; (9) spina silvestris in XVII 75 = calabrix, i.e., buckthorn, *Rhamnus infectorius*, but in XXIV 111 = aspalathos (1), i.e., camel's thorn, *Alhagi maurorum*; (10) spina appendix (XXIV 114) is the barberry, *Berberis vulgaris*; (11) the spina of India producing lycium = pyxacanthus chironius, i.e., the buckthorn, *Rhamnus lycioides* (X 100, 205, XII 30-31, XXIV 125; cf. XXIV 124); (12) spina candida in XII 110 and XXIV 111 = aspalathos (1); (13) the spinae growing in Aria (XII 33-34) are *Balsamodendron Mukul* and asafœtida, *Scorodisma foetidum*; (14) the spina growing in Gedrosia (XII 34) is ancient milkwort, *Euphorbia antiquorum*; (15)

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- the spina of India with translucent, ebony-like wood (XII 21) is of uncertain identity; and (16) the spina fullonia (XVI 244; cf. XXIV 111, XXVII 92) is the teasel, *Dipsacus fullonum*.
- Spinca, a kind of grape-vine, XIV 34.
- Spionia, a kind of grape-vine, XIV 34.
- Spiraea, (1) drop-wort, *Spiraea filipendula*; (2) meadow-sweet, *Spiraea ulmaria*, XXI 53.
- Splenion = hemionion, XXV 45.
- Spondylium, bear's foot, *Heracleum spondylium*, XII 128, XXIV 22, 25.
- Stachys, in XXIV 136 perhaps downy woundwort, *Stachys germanica*.
- Stacte, a type of murra, XII 68, XIII 17.
- Stagonitis, galbanum giant fennel, *Ferula galbaniflua*, and the resin obtained from it, XII 126.
- Staphis, a type of larkspur, *Delphinium staphis agria*, XXIII 17.
- Staphyle = vitis alba, XXIII 21.
- Staphylinus, the cultivated carrot, *Daucus carota*, XIX 88, XX 30, 32, 33, XXV 112, XXVIII 232.
- Staphylodendron, bladder-nut, *Staphylea pinnata*, XVI 69.
- Statice, perhaps common thrift, *Armeria vulgaris*, XXVI 51.
- Stelephuros (also called ortyx and plantago), a plantain, probably *Plantago lagopus*, XXI 101.
- Stelis, mistletoe, *Viscum album*, XVI 245.
- Stephanitis, a kind of grape-vine, XIV 42.
- Stephanomelis, perhaps goose grass, *Potentilla anserina*, XXVI 136.
- Stephanon Alexandri, spurge laurel, *Daphne mezereum*, XV 132.
- Stergethron, house-leek, *Sempervivum arboreum*, XXV 160.
- Stobrus, a tree imported from Carmania for fumigation, unidentified, XII 79.
- Stoebe = pheos, XXI 91, XXII 28.
- Stoechas, French lavender, *Lavandula stoechas*, XIV 111, XXVI 42, XXVII 131.
- Storax (styrax), officinal storax, a resinous gum, or the tree producing it, *Storax officinalis*, X 195, XII 81, 98, 124, 125, XIII 18, XV 26, XXIV 24, XXVI 48.
- Storbon, the resin of ladanum, *s.v.*, XII 74.
- Strangias, a kind of wheat, XVIII 64.
- Stratiotes, the great duck-weed, *Pistia stratiotes* (a tropical plant), XXIV 169.
- Streptis, a kind of grape, XIV 39.
- Strumus, (1) = ranunculus, XXV 174; (2) = strychnos, XXVII 68.
- Strutheum, quince, *Cydonia vulgaris*, XIII 11, XV 38, 48, 58, XXI 142, XXIII 91, 103.
- Struthion = radicula, *s.v.*, XIX 48, XXIV 96, XXVI 124.
- Strychnos, basically and generally a term for the nightshade, especially the black nightshade, *Solanum nigrum*, sometimes synonymous with halicacabum, *s.v.*, in some cases with dorycnion, *s.v.* See XXI 177, 181, XXVI 120,

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- XXVII 60, 68, 132, XXVIII 177.
- Styrax. See Storax.
- Suber, cork-oak, *Quercus suber*, XVI 19, 25, 34, 80, 98, 106, 126, 189, 204, 211, 212, XVII 234, XXIV 13.
- Suillus, a mushroom, probably *Boletus edulis*, XVI 31, XXII 96, 98.
- Surcula, a kind of grape-vine, XIV 34.
- Syagrus, a kind of date, XIII 41.
- Syce = peplis, XXVII 119.
- Syllibum. See Sillybum.
- Symphytum, usually comfrey, *Symphytum officinale*, XXVI 45, 81, 137, 148, 161, XXX 115. In XXVII 41 symphyton petraeum is probably *S. tuberosum*, and in XIV 108 it is equivalent to helenium and therefore probably elecampane, *Inula helenium*.
- Syreon = tordylon, small hartwort, *Tordylium officinale*, XXIV 177.
- Syriaca siliqua, XXIII 151. See Siliqua.
- Syringias, a reed for making flutes, XVI 164.
- Syron = molon, XXVI 33.
- Syrtica arbor, nettle-tree, *Celtis australis*, XXIV 6.
- Taeda, stone pine, *Pinus cembra*, XVI 44, 52, 58, 61, 73, XVII 253, XXIV 41, XXIX 34, XXX 24, XXXV 41, 43.
- Talpona, a kind of grape-vine, XIV 36.
- Tamarice = myrice, tamarisk, *Tamarix articulata*, XXIV 67, 102.
- Tamarix = tamarice, XIII 116, XVI 80, 90, 108, XXVI 86, XXVIII 81, 165, XXX 97.
- Tamnus, black bryony, *Tamus communis*, VIII 112, XXI 86, XXV 92.
- Tarum, aloe-wood, *Aloe vera*, XII 98.
- Taxa, v.l. for thasia, XV 130.
- Taxus, yew-tree, *Taxus baccata*, XVI 50, 51, 80, 212, XXII 97, XXIV 116.
- Telephion, a plant like purslane, perhaps orpine, *Sedum telephium*, XXVII 137.
- Telis, fenugreek, *Trigonella foenum graecum*, XIII 13, XXIV 184.
- Teramon and ateramon, given by Pliny (XVIII 155) as names of weeds in bean crops, through careless reading of Theophr. H. P. VIII 8, 6, where the bean is characterized as "cookable" (τέραμον) or "uncookable" (ἀτέραμον).
- Terebinthus, terebinth, *Pistacia terebinthus*, XI 77, XII 25, 56, 121, XIII 9, 54, 115, XIV 112, 122, XVI 55, 58, 73, 80, 98, 106, 203, 204, 205, 231, 233, 245, XXIII 145, XXIV 27, 32, 34, 35, XXVII 20, XXVIII 205, 252, XXX 40, 75, 114, XXXI 121, XXXIV 115, 133, 176, XXXV 176.
- Tetradice = erica, XI 42.
- Tetralix, yellow star-thistle, *Centaurea solstitialis*, XXI 95.
- Teuchitis, sweet-scented rush, *Andropogon schoenanthus*, XXI 120.
- Teucra = teucrion, XXIV 130, XXV 99, XXVI 35, 75.
- Teucrion, in XXIV 130, germander, *Teucrium chamaedrys*, in XXV 45 and XXVI 77, spleen wort, *Teucrium flavum*. See XXVII 77.

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- Teuthalis, a *v.l.* for thalattias, XXVII 113.
- Teutrium = polium, XXI 44.
- Thalassaegle = potamaugis, XXIV 164.
- Thalattias = polygonum, XXVII 113. So Detlefsen and Mayhoff, but the MSS. have halattas, alattas and balattas.
- Thalictrum, meadow-rue, either *Thalictrum flavum* or *T. minus*, XXVII 138.
- Thapsi, *v.l.* for thlaspi, XIX 171.
- Thapsia, a poisonous shrub, drias plant, *Thapsia garganica*, XIII 124-126, XIX 173, XXVI 22.
- Tharrupia, a kind of grape, XIV 39.
- Thasia, a kind of laurel, *Laurus nobilis*, XV 130.
- Theangelis, an intoxicating herb, unknown, XXIV 164.
- Thelygonon, (1) perennial mercury. *Mercurialis perennis*, or *Mercurialis tomentosa*, XXVI 162; (2) = satyrion, XXVI 99.
- Thelygonos = crataegonos, XXVII 62. See also XXVI 99.
- Thelyphonon = scorpio, XXV 122; = aconitum, XXVII 4, 9.
- Thelypteris, bracken, *Pteris aquilina*, XXVII 78.
- Theobrotion, probably ancient milk-wort, *Euphorbia antiquorum*, XXIV 162, 166.
- Theriaca, a kind of grape-vine, XIV 117.
- Therionarca (theronarca), probably oleander, *Nerium oleander*, see XXIV 163 and XXV 113.
- Thesium, holewort, *Corydalis densiflora*, XXI 107, XXII 66.
- Thlaspi, a kind of cress, variously identified with (1) pepperwort, *Lepidium campestre*; (2) shepherd's purse, *Capsella bursa pastoris*; (3) *Cochlearia draba*, and (4) *Lunaria annua*, XXVII 139. In XIX 171 Pliny cites thlaspi as a secondary name for mustard through careless reading of Diosc. 2. 156 W. or his source, and his reference in XXVII 140 to a second type of thlaspi, also called "Persian mustard," is another garbling of the same account.
- Thorybethron = leontopodion, XXVI 52.
- Thryallis, a secondary name for the third type of phlomis, *s.v.*, XXI 101, XXV 121.
- Thryselinum, perhaps a kind of sion, XXV 141.
- Thya = thyon, thyme-wood tree, *Callitris quadrivalvis*, XIII 100. See also Citrus.
- Thymbra, savory, *Satureia hortensis*, XIX 165.
- Thymbraeum = sisymbrium silvestre, XX 247.
- Thymelaea, mezerlon, *Daphne mezereum*, XIII 114.
- Thymum, (1) garden thyme, *Thymus vulgaris*; (2) Cretan thyme, *Thymbra capitata*, XI 34, 38, 39, 242, XIV 111, XIX 92, 186, XXI 56-57, 70, 147, 154-157, XXIII 20, XXIV 81, XXVI 42, 55, XXVII 41.
- Thyon = thya.
- Tibialis, a kind of reed, XVI 168.
- Tibulus, a kind of pine-tree, XVI 39.
- Tilia, linden, *Tilia tomentosa*, XI

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- 32, XVI 30, 35, 65, 74, 87, 97, 126, 207, 209, 226, XVII 201, 234, 235, XVIII 266, XXIV 50.
- Tinus, laurustinus, *Viburnum tinus*, XV 128, XVII 60.
- Tiphe, one-grained wheat, *Triticum monococcum*, XVIII 81, 93.
- Tiphyon, a *v.l.* for iphyon, XXI 67.
- Tithymalis, a type of spurge, *Euphorbia helioscopia*, XXVI 68.
- Tithymalus, spurge, *Euphorbia* sp., XX 209, XXIV 31, XXVI 21, 60, 62-71, 90, 99, 110, 116, 118, 119, 126, 146, 150, 164.
- Tordylon, in part, small hartwort, *Tordylium officinale*, XX 238, XXIV 177.
- Toxicum, a kind of ladanum, XXVI 47.
- Trachinia, unknown, XXVII 141.
- Trachy, species of *Commiphora*, XII 114.
- Tragacantha, "goat's thorn," tragacanth, especially *As-tragalus tragacantha*, XIII 115, XXVI 140, XXX 78, 126.
- Tragion, "goatwort," perhaps lentisk, *Pistacia lentiscus*, or perhaps goat-scented St. John's wort, *Hypericum hircinum*, XIII 115, XXVII 141.
- Tragonis = tragion, XXVII 141.
- Tragopogon, goat's-beard or sal-sify, including the purple-flowered *Tragopogon porri-folius* and *crocifolius* and perhaps the yellow-flowered *T. pratensis*, XXI 89, XXVII 142.
- Tragoriganum, goat's origanum, *Thymus tragoriganum*, XIV 111, XX 176.
- Tragos, (1) a kind of wheat, perhaps emmer, *Triticum di-coccum*, XVIII 93; (2) a thorny plant, of uncertain identity, also called scorpion, XIII 116, XXVII 142.
- Tribulus, (1) land caltrop, *Tribulus terrestris*, XVIII 153, XXI 91, XXII 27; (2) water chestnut, *Trapa natans*, XXI 98, XXII 27; (3) in other authors also the caltrop, *Fagonia cretica*.
- Trichomanes, maidenhair spleen-wort, *Asplenium trichomanes*, XXII 63, XXVII 138.
- Tricocum, a heliotrope, *Helio-tropium*, and perhaps scorpion grass, *Scorpiurus sulcata*, XXII 57, 60.
- Trifolium, usually strawberry-headed trefoil, *Trifolium fragi-ferum*, XVIII 34, 144, 259, 365, XX 264, XXI 54 (three kinds described), 152-153, XXVI 87, 89, 119.
- Triorchis = centaureis, XXV 69.
- Tripedanea, a kind of grape-vine, XIV 41.
- Tripolion (-um), a *Plumbago*, or tripoly, *Aster tripolium*, or sea lavender, *Statice limonium*, XXVI 39.
- Trithales, house-leek, *Semper-vivum tectorum*, XXV 160.
- Triticum, used in three senses, depending on context, (1) wheat generically, (2) naked wheat generically, and (3) poulard, *Triticum turgidum*, in particular, XVII 72, XVIII 48, 49, 50, 56, 61-70, 76, 79, 81, 82, 85, 89, 94, 97, 98, 102, 104, 106, 116, 155, 164, 165, 166, 184, 189, 191, 198, 202, 298, 299, 304, 305, 307, XIX 17, XX 20, XXI 127, XXII

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- 119, 120, 121, 124, 136, 161, XXIII 23, XXIV 135, XXVII 62, XXXIII 108.
- Trixago, germander, *Teucrium chamaedrys*, XXIV 130, XXV 167, XXVI 149.
- Trychnos = strychnos, XX 141, XXI 89, 177, XXVII 60.
- Trygonis = pastinaca, IX 155.
- Tuber, (1) probably a form of the common jujube, *Zizyphus vulgaris*, XII 113, XV 47, XVI 103, XVII 75; (2) truffle, chiefly the black truffle, *Tuber cibarium*, XIX 33-37, 63.
- Tuber terrae, a species of *Cyclamen*, XXV 115.
- Tus, as a term for a tree, the frankincense-tree, *Boswellia Carteri*, XII 55-57, 67, 76, 81, XVI 136, XIX 187.
- Tus terrae = chamaepitys, XXIV 29.
- Tussilago, colt's foot, *Tussilago farfara*, XXVI 30, 124, 128, XXXI 44.
- Ulex, a shrub like rosemary, XXXIII 76.
- Ulmus, elm, *Ulmus glabra*, XI 14, XIII 55, 58, 67, XIV 12, XV 57, XVI 72, 74, 87, 92, 97, 108, 123, 125, 132, 176, 181, 193, 210, 218, 219, 228-230, XVII 65, 76, 77, 90, 116, 124, 200, 201, 210, 252, XVIII 240, 243, 266, 286, XXI 98, XXIV 48.
- Ulophonon, black type of chamaeleon, *Cardopatum corymbosum*, XXII 47.
- Ulpicum, Cyprian garlic, a form of *Allium sativum*, XIX 112.
- Ulva, sedge, *Ulva conferva*, XVI 4, XVII 55, 209, XXI 111.
- Uncialis, a kind of grape, XIV 42.
- Unedo, strawberry-tree, *Arbutus unedo*, XII 15, 37, 67, XIII 120, XV 96, 98, XVI 80, 126, XXIII 151. See *Arbutus*.
- Urceolaris, wall pellitory, *Parietaria officinalis*, XXII 43.
- Urtica, the nettle, chiefly the stinging nettle, *Urtica urens*, and the large nettle, *U. dioica*, but also *U. pilulifera*, *U. membranacea*, *U. rupestris*, and *U. atrovirens*, X 163, XVI 91, XXI 92-93 (various kinds), XXII 31-38, XXIV 172, XXVII 81, XXIX 68, XXX 52, 78, 90, XXXII 102, 135; *U. urens*, XV 31. The *urtica marina* (IX 146, XXVI 88, XXXI 96, XXXII 102, 135, 146) is not a plant, but the sea-nettle.
- Uva taminia, the fruit of the tamnus, XXIII 17, 19, XXVI 133, XXVIII 152, 161, XXIX 94, XXX 82.
- Vaccinium, whortleberry, *Vaccinium myrtillus*, XVI 77.
- Vela = irio, XXII 158.
- Venicula, a kind of grape-vine, XIV 34.
- Vepris, thorn-bush, XVIII 226, XXI 51, XXVI 92, XXXII 50.
- Veratrum = helleborum, VIII 152, XIV 110, XXV 52, 124, 133, 139, 170, XXVI 138, XXVIII 171.
- Verbascum, (1) mullein, *Verbascum thapsus*; (2) *V. sinuatum*; (3) *V. phlomoides* or perhaps *Phlomis lychnitis* or *fruticosa*, XXV 120, 121, 143, 166, XXVI 23, 28, 31, 32, 44, 92, 122, 126, 127, 137, 144, 149, XXVII 33.

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- Verbena, in plural the leaves or twigs of plants used for sacred purposes, usually vervain, *Verbena officinalis*, V 119, XXII 5.
- Verbenaca, vervain, *Verbena officinalis*, XXV 105, 107, 112, 119, 160, 164, 166, XXVI 26, 37, 49, 78, 87, 100, 101, 106, 114, 117, 120, 123, 127, 143, 147, 160, XXVII 21, XXX 35.
- Verrucaria = helioscopium, XXII 59.
- Vesicaria, perhaps bladder-wort, *Utricularia* sp., or strawberry tomato, *Physalis alkekengi*, XXI 177.
- Vettonica, betony, *Betonica officinalis*, XXV 84, 101, 122, 125, 127, 128, 145, XXVI 28, 31, 32, 33, 35, 38, 40-42, 44, 45, 54, 74, 75, 77, 78, 105, 107, 110, 112-114, 116-119, 123, 136, 137, 149, 151, 161.
- Vibones, flowers of britannica herba, XXV 21.
- Vicapervica (= chamaedaphne), periwinkle, *Vinca herbacea*, or double-tongue, *Ruscus hypophyllum*, XXI 68, 172.
- Vicia, tare, *Vicia sativa*, XI 165, XVI 246, XVIII 50, 58, 137, 138, 139, 142, 143, 156, 164, 181, 187, 198, 202, 257, 314.
- Viminalis salix, willow bearing twigs for plaiting, XVI 177, XVII 143.
- Vinaciola, a kind of grape-vine, XIV 38.
- Viola, (1) stock, *Matthiola incana*; (2) sweet violet, *Viola odorata*, XI 39, XII 39, XIII 141, XXI 14, 27, 35, 37, 45, 46, 64, 68-70, 130-131, XXIV 128, 135, 159, XXXIII 163, XXXVII 116.
- Virga sanguinea, cornel, *Cornus sanguinea*, XIX 180, XXIV 73. See also Frutex sanguineus.
- Viscum, mistletoe, *Loranthus europaeus* and *Viscum album*, XIII 119, 129, XVI 31, 120, 243, 245-251, XVII 239, XX 25, 132, 176, XXII 45, 47, 103, XXIII 43, 61, XXIV 11, 36, XXVI 21, XXVII 50, XXVIII 158, 161, 162, 245, XXX 111, XXXII 31, XXXIII 94.
- Visulla, a kind of grape-vine, XIV 28, 31.
- Vitex, the chaste-tree, *Vitex agnus castus*, XVI 209, XXIV 59-64, XXVI 97, XXX 35, 50, XXXI 44, XXXII 29.
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- Vitis alba*, common bryony,
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- Xiphion, corn-flag, *Gladiolus
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- Xylobalsamum, balsam-wood,
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- Xylocinnamomum, cinnamon-
wood, XII 91.
- Xylon, wood of cotton-tree, *Gos-
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- Xypris, stinking iris, *Iris foe-
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- Zea, two-grained wheat, *Triti-
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coccum*, XVIII 81, 82, 93, 112,
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- Zmintha. See Menta.
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- Zopyrontion = clinopodium,
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- XII 39: tamarind, *Tamarindus
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- XII 47 (plant in Thrace similar
to Indian nard): *Valeriana
Dioscoridis*.
- XIII 65: *Mimosa asperata*
(called aescynomene in
XXIV 167).
- XIII 129: a species of dodder,
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- XIII 138: (1) (a leaf like leek)
Ligurian grass-wrack, *Posi-
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bay and thyme) a madre-
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- XVI 221: teak, *Tectona grandis*.
- XVI 221: calamander-wood,
Diospyros quaesita.
- XIX 15 (thread made from
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usually called gossipion.

LIST OF DISEASES AND AFFECTIONS MENTIONED BY PLINY

To equate modern diseases with the names used by ancient physicians is a task full of uncertainty. In some cases indeed there is no difficulty; a disease may have such distinctive symptoms, and be so unlike any other, that its description in Celsus or Galen points clearly to one, and only one, diagnosis, examples being intermittent malarial fevers and the common cold. Pneumonia again in both Greek and Latin writings is usually easy to detect (although there is some chance of confusion with acute bronchitis), and so are also dropsy and pleurisy. Often, however, we can do no more than divide into groups: (1) diseases and (2) the ancient names of diseases, and then identify a group from one with a group from the other. Many quite different diseases are so alike symptomatically that identification can be established, even today, only by a microscopic examination conducted with a technique quite unknown to the ancients. Great care is needed with eye diseases and skin diseases, both of which were far more common in earlier days than they are with us, for dust was everywhere and disinfecting cleansing was practically unknown. The principle of grouping is nearly always the safest one to adopt; to attempt more is hazardous. For example, we have on the one hand *collectio*, *furunculus*, *panus*, *vomica* and *tumor*; on the other we have "boil," "abscess," "gathering" and "carbuncle." The group of complaints covered by the Latin terms is nearly, if not quite, the same as that covered by the English, but any attempt to make more specific identification is attended with much uncertainty; perhaps *panus* is the only one we can isolate more completely.

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More important for our appreciation of antiquity than the identification of specific diseases is to ascertain which, if any, modern diseases were unknown in the Hellenistic age. Here the evidence, especially that relating to infectious fevers, is most disappointing. These fevers are endemic in the modern world, and figure largely in treatises on pathology. But the old medical writers—"Hippocrates," Celsus, Galen and the many compilers who succeeded Galen—do not describe, or give treatment for, small-pox, chicken-pox, measles, scarlatina, typhoid or even influenza. The most that can be said is that in isolated clinical histories or in chance aphoristic remarks one or other of them may be referred to; the evidence is strongest for diphtheria. Moreover, in the pseudo-Aristotelian *Problems* (VII 8) it is said that consumption, ophthalmia and the itch are infectious, but that fevers are not. It is difficult to believe that a people who knew that consumption is infectious would have called scarlatina non-infectious if it had been endemic among them.

The Romans borrowed many names of diseases from the Greeks. Usually, of course, the Latin word refers to the same disease as does the Greek, especially in the works of medical writers. But care must be exercised; *λέπρα*, for instance, seems to be much narrower than *lepra*.

Celsus is by far the most trustworthy authority to follow in identifying the diseases mentioned by Pliny, for both were Romans, both (probably) laymen and nearly contemporaries.

Aegilops.—A lacrimal fistula at the angle near the nose.

Albugo.—An unknown kind of white ulcer on the eye. In XXVI § 160 used of a head ulcer. The word occurs only in the Vulgate Bible and in Pliny.

Alopecia.—A disease in which the hair fell out. Meaning literally "fox mange," it is translated "mange" in the text. It is perhaps unsafe to limit it to the modern alopecia. Celsus (VI 4) has a brief ac-

count of it, saying that it occurred in the hair and beard. He distinguishes it from *ὀφίασις*, probably ringworm, for this had a winding shape, whereas *alopecia* "*sub qualibet figura dilatatur*."

Amphemerinos.—Quotidian malaria.

Angina.—An acute swelling in the neck, generally quinsy. A loose term like our "sore throat." Sometimes possibly diphtheria.

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Apostema.—Greek for abscess.

Argema.—A small white ulcer, partly on the cornea, partly on the sclerotic coat of the eye.

Articularius morbus.—This in XXII 34 is joined to *podagricus*, and so means probably not gout but arthritis.

Asthma.—Apparently only XXVI 34. See also XXV 82.

Atrophus.—"Wasting away," of all such conditions, of which phthisis is one.

Boa.—"A disease when the body is red with pimples," XXIV 53. See also XXVI 120. An exanthem not certainly identified. Shingles is localised. It cannot be, as Hardouin thought, measles, because that disease seems to have been first described by Rhazes.

Cachecta.—A patient who is in a very bad state of health; sometimes a "consumptive" patient is meant.

Cacoethes.—A Greek adjective applied to sores that are very difficult or impossible to cure; "malignant" is the nearest, but not quite exact, equivalent.

Calculus.—Stone or gravel in the bladder.

Caligo.—Dimness of the eyes, hard to distinguish from *nubecula* (film) and *caligatio* (mistiness).

Carbunculus.—In XXVI 5, 6 seems certainly to be anthrax, and Pliny's description resembles that of Celsus V 28, 1. The word was, however, used of minor affections; for example, *carbunculus oculi* is a sty, and it is often used of a bad abscess.

Carcinoma.—Superficial malignant disease, severe forms of which are called *cacoethe*. It seems impossible to distinguish, at least in Pliny, *carcinoma* from *ulcera cacoethe*, *phagedaena* and *gangraena*.

Cardiacus.—The adjective refers to either disease or patient. Sometimes a simple ailment, heartburn, is referred to, at other times a serious complaint, said by W. G. Spencer on Celsus III 19 to be a kind of syncope. In fact the reference may be to any ailment supposed to be connected with the heart.

Cephalaca.—Aretaeus (III 2) calls this a severe, chronic headache, and says that there are *ιδέαι μυρία*. Persistent neuralgia, except when it means malarial headache, must be the complaint referred to.

Cerium.—Described by W. G. Spencer on Celsus V 28, 13 as a follicular abscess among hair. Its appearance—*κηρίον* means "honeycomb"—enables us to distinguish it from *panus*; it was also often more severe.

Chiragra.—Gout or gouty pains in the hands. But see *podagra*.

Cholera.—Perhaps never Asiatic cholera, but *cholera nostras* and possibly certain types of dysentery and severe diarrhoea. The word is derived from *χολή*, "bile."

Clavus.—Wart, cern or callus.

Coeliacus morbus.—W. G. Spencer on Celsus IV 19, 1 (last note) says that the author appears to be de-

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- scribing pyloric spasm and intestinal atony. Cf. Aretaeus IV 7.
- Collectio*.—The most general term for a boil or abscess, a "gathering."
- Colostratio*.—Disease of babies caused by the first milk.
- Colum*.—Colitis, or inflammation of the colon.
- Comitalis morbus*.—Epilepsy and sometimes other fits.
- Condyloma*.—A small tumour in the anus due to inflammation. See Celsus VI 18, 8.
- Convulsa*.—Sprains.
- Cotidiana*.—Quotidian ague, malaria with fever occurring every day.
- Destillatio*.—A "running" cold in the head. Sometimes internal catarrh.
- Duritia*.—An induration, from whatever cause, in any part of the body.
- Dysinteria*.—Usually dysentery, but probably also severe diarrhoea, however caused.
- Dyspnoea*.—Difficulty of breathing, however caused.
- Elephantiasis*.—The usual name of leprosy. See XXVI 7 and 8, where it is said to have quickly died out in Italy.
- Enterocoele*.—Hernia.
- Epinyctis*.—Either (1) a sore on the eye-lid or (2) an eruption caused by fleas or bugs.
- Epiphora*.—Running from the eyes as the result of some ailment.
- Eruptio*.—A bursting out of morbid matter, either through the skin or sometimes in other ways.
- Extubercatio*.—A fleshy excrescence, perhaps not morbid.
- The word apparently occurs only in XXXI 104.
- Febris*.—Feverishness, or else one of the recognised types of malaria.
- Fistula*.—Practically synonymous with the modern term.
- Flemina*.—A severe congestion of blood around the ankles. It is neuter plural.
- Fluctio* and *fluxus*.—There seems to be little if any difference in the meaning of these words—any flow, but usually a morbid one. Pliny prefers *fluctio*.
- Formicatio*.—An irritating wart. See Celsus V 28, 14.
- Furfur*.—Scurf (anywhere).
- Furunculus*.—A boil, said by Celsus (V 28, 8) not to be dangerous, whereas Pliny (XXVI 125) says that it is sometimes *mortiferum malum*.
- Gangraena*.—Gangrene, hard to distinguish from *phagedaena* and *ulcera serpentina*.
- Gemursa*.—A disease the seat of which was between the toes. It is said by Pliny (XXVI 8) to have died out quickly in Italy. See Littré's note.
- Glaucoma*.—Opaqueness of the crystalline lens.
- Gravedo*.—The usual term for the common cold.
- Gremia*.—Rheum.
- Hepaticus*.—A sufferer from any liver complaint.
- Herpes*.—A spreading eruption on the skin.
- Hydrocelicus*.—A sufferer from hydrocele.
- Hydropsis*.—Dropsy.
- Hypochysis*.—Cataract.
- Ictericus*.—A sufferer from jaundice.
- Ignis sacer*.—Erysipelas. Per-

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- haps also some form of eczema or lupus. Also = shingles.
- Ileus*.—Severe colic. Possibly appendicitis was included under this term.
- Impetigo*.—The Romans used this term of various kinds of eczema. Celsus (V 28, 17) mentions four, the last being incurable.
- Impetus*.—Inflammation or an inflamed swelling; Pliny has *impetus oculorum*. With the genitive of a word meaning a specific disease it denotes an attack of it.
- Intertrigo*.—Chafing, especially between the legs.
- Ischias*.—Sciatica.
- Laterum dolor*.—"Severe pain in the side," nearly always pleurisy.
- Lentigo*.—Freckles.
- Leprae*.—Seems to be used of any scaly disease of the skin; Pliny gives cures. There was a kind regarded as incurable, but this is not mentioned by Pliny, who has forty-six references, all to cures.
- Lethargus (lethargia)*.—In Hippocrates probably the comatose form of pernicious malaria, but later perhaps also prolonged coma of any kind.
- Lichen*.—This is said by Pliny (XXVI 2-4) to be a new disease to Italy, usually beginning on the chin. Hence the name *mentagra* (chin disease). Littré diagnoses it as leprosy, but Pliny says (XXVI § 1) *sine dolore quidem illos, ac sine perniciē vitæ*. This statement, as Pliny puts it, applies also to *carbunculus* and *elephantiasis*, but Pliny's own account of these diseases is quite inconsistent with *sine perniciē*. So Pliny's remark is carelessly inaccurate, or applies only to *lichenes*.
- Lippitudo*.—Inflammation of the eye, generally ophthalmia.
- Luxata*.—Dislocations.
- Malandria*.—Pustules on the neck.
- Melancholicus*.—One suffering from melancholia, which included malarial cachexia and many melancholic conditions, even mere nervousness. In fact it included any disease supposed to be caused by "black bile" (*μέλαινα χολή*).
- Mentagra*.—In XXVI 2 called a lichen beginning on the chin. See *lichen*.
- Nome* (pl. *nomae*).—A spreading ulcer, much the same as *ulcus serpens*.
- Nubecula*.—A cloudy film on the eye, sometimes cataract.
- Nyctalops*.—One afflicted with night blindness.
- Opisthotonus*.—The form of tetanus in which the body curves backwards.
- Orthopnoea*.—Serious asthma, when the patient cannot breathe unless upright.
- Panus*.—Spencer in a note on Celsus V 18, 19 calls this a "superficial abscess in a hair follicle." It occurred chiefly on the scalp, on the groin and under the arm.
- Paronychia (-um)*.—Whitlow.
- Parotis*.—A swelling of the glands by the ears. Some authorities think that it may have included mumps, which is described in Hippocrates, *Epidemics* 1.

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- Perfrictio*.—Sometimes a severe chill.
- Peripleumoniscus*.—A sufferer from pneumonia.
- Pernio*.—Chilblain.
- Pestilentia*.—Plague; a term as vague as the English, but usually bubonic.
- Phagedaena*.—Gangrene, hard to distinguish from *gangraena*. In XXVI 100 an abnormal diseased appetite.
- Phlegmon*.—Inflammation beneath the skin.
- Phreniticus*.—Properly a sufferer from *phrenitis* or *phrenesis*, pernicious malaria accompanied by raving. It also refers to the symptom when not caused by malaria, for in post-Hippocratic medical works it often seems equivalent to "brain fever." Perhaps sometimes meningitis.
- Phthiriasis*.—Phthiriasis, skin disease caused by lice.
- Phthisis*.—Pulmonary consumption.
- Pituita*.—Excessive mucus, in any part of the body.
- Pleuriticus*.—A sufferer from pleurisy.
- Plumbum* in XXV 155, points to the leaden bluish colour of certain eye diseases. Serenus XIV 33: *si vero horrendum ducent glaucomata plumbum*.
- Podagra*.—Gout or gouty pains in the foot. Sometimes perhaps the result of lead poisoning. See Spencer's *Celsus* I 464. Pliny (XXVI 100) says that the disease was on the increase in his day. The word (often with *chiragra*) refers sometimes to pains caused by senile degeneration.
- Porrigio*.—Dandruff or scurf (on hairy parts).
- Prurigo* and *pruritus*.—Itch; the words can scarcely be discriminated, although perhaps *pruritus* tends to be used of the symptom, *prurigo* of the infection.
- Psora*.—Several skin diseases are included under this term among which are itch and perhaps leprosy.
- Pterygium*.—An inflammatory swelling at the inner angle of the lower eyelid; another name for it is *unguis*. It also means a whitlow.
- Pusula*.—Pustule or blister.
- Quartana*.—Quartan ague, or malaria occurring after intervals of two days. It was reckoned the mildest form of the disease.
- Ramex*.—Hernia.
- Regius morbus*.—Jaundice.
- Rhagades*.—Chaps.
- Rheumatismus*.—Catarrh, whether of the nose, throat or stomach.
- Rosio*.—Gnawing pain in the chest or bowels.
- Rupta*.—Torn muscles etc.
- Scabies*.—Not our scabies, which is caused by the itch mite, but described by Celsus (V 28, 16) as a hardening of the skin, which grows ruddy and bursts into pustules with itching ulceration. It includes many types of eczema. *Scabies* of the bladder, a disease of which the symptom was scaly concretions in the urine.
- Scabritia*.—Diseased roughness of fingers, nails, eyes, etc.
- Scelotyrbe*.—Lameness of the knee or ankle.

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Siriasis.—Probably some form of sunstroke.

Spasma.—Cramp.

Splenicus.—Suffering from enlarged or diseased spleen. Enlargement of the spleen is a common after-effect of repeated attacks of malaria.

Stegna.—See note on XXIII 120.

Stomacace.—Scurvy of the mouth.

Stomachicus.—It is doubtful whether this means "one with stomach trouble" or "one with disease of the oesophagus." It is a word not much used by medical writers, but Caelius Aurelianus has a section on disease of the oesophagus. Although the Romans distinguished (Celsus IV 1) stomach from oesophagus (*stomachus* can mean either), they appear to have described under the same name their morbid conditions. In English "stomach," at least in popular speech, is equally vague.

Stranguria.—Strangury.

Struma.—A scrofulous sore.

Suffusio.—Usually cataract.

Suspiriosus.—Asthmatic. Apparently a popular word, as it is rarely found in the medical writers.

Syntecticus.—One wasting away, from whatever cause.

Tertiana.—Tertian ague, malaria with an onset every other day.

Testa.—A brick-coloured spot on the face. See XXVI 163 and XXVIII 185.

Tetanus.—Tetanus. See Celsus IV 6, 1 with Spencer's notes on *opisthotonus* and *emprosthotonus*.

Tormina (neut. pl.).—A general word for colic. It also sometimes means strangury.

Tremulus.—One with morbid tremors, palsied. See XX 85 *paralyticis et tremulis*.

Tuber.—A hard tumour.

Tumor.—Any morbid swelling.

Tussis.—A cough—the complaint rather than the act.

Tympanicus.—One afflicted with tympanites, a kind of dropsy, which makes the belly swell.

Ulcus.—A favourite word with Pliny, usually used in the plural. *Ulcera manantia* are "running" sores, and *ulcera putrescentia* (*serpentia*) include gangrene and superficial malignant diseases.

Unguis.—Another name for *pterygium*, an inflammatory swelling at the inner angle of the lower eyelid.

Varix.—Varicose vein.

Varus.—A pimple on the face.

Verruca.—Wart, a less wide term than *clavus*.

Vertigo.—Vertigo, usually giddiness caused by illness.

Vitiligo.—This includes more than one kind of psoriasis. The Romans distinguished the dull white, the dark, and the bright white. Sometimes perhaps leprosy.

Vomica.—Abscess; any gathering of pus, but apparently larger than *furunculus*. It was sometimes internal, but *panus* was superficial.

Zoster.—This ("girdle disease") was herpes round the waist, possibly shingles. Pliny calls it a form of erysipelas (*ignis sacer*), XXVI 121.

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